MAY 1946

FIREMEN

FIFTIETH ANNIVERSARY YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

VOLUME 13, NUMBER 5, COPYRIGHT 1946 NATIONAL FIRE PROTECTION ASSOCIATION PRINTED IN U. S. A.

Navy Achievement Award to NFPA

DRENCH

FIGHTS FIRE FASTER

DRENCH* is an amazing new development for faster fire fighting. Many months of experiment including tests in actual fires proves that wherever water is used, the addition of DRENCH in proportions of 1% by volume increases its efficiency and speedily brings fire under control. By decreasing drop size, DRENCH helps water from fog, spray and straight stream nozzles fight fire faster. Use water as you always have, but now add DRENCH.

Forest Fires — DRENCH is an indispensable aid to the fighter of forest fires where speed, saturation and maximum use of limited water supply are equally essential.

Industrial Fires — DRENCH with water works quickly and effectively to put out fire, thus reducing loss of property, materials and invaluable production time.

Residential Fires — DRENCH expedites the rapid diffusion of water over regular and irregular, inside and outside solid surfaces, bringing swift extinction to the heart of the fire.

Write today for further information about DRENCH and how it increases the fire fighting efficiency of water in your equipment. Include specific details as to the particular nature of your fire problem. Address your letter to Fire Specialties Division, Arnold, Hoffman & Co., Inc., 55 Canal Street, Providence, Rhode Island.

*Pats. Pending

ARNOLD, HOFFMAN & CO., INC.

FIRE SPECIALTIES DIVISION

55 CANAL STREET PROVIDENCE, R. I.

TRADE MARK
GAMEWELL
REG. U. S. PAT. OFF.

The FIRE ALARM FACTOR

Good fire alarm box distribution alone is not enough — the boxes in order to serve their purpose must be quickly found when needed. The Underwriters' Standards provide that a box should be *plainly visible from the main entrance of any building in congested districts* and Section 206-11 of the Standards also provides:

"Boxes shall be conspicuously located at street corners where practicable. The box and a portion of the supporting pole or post shall be painted 'Signal' red, preferably with white stripes above and below the red. A special colored light shall be provided at or near every box in closely built sections, to indicate location at night."

Excessive fire losses are almost invariably caused by delayed alarms. Why not investigate, in your city, the AVAILABILITY AND VISIBILITY of the means for sending alarms?

Remember, every minute of delay in calling the Fire Department accelerates the spread of fire and increases the fire loss — and that the municipality should provide adequately for the public safety.

Write for booklet entitled
"It Can Happen Here"

We survey cities and towns and prepare recommendations and estimates, without cost or obligation, at the request of any authorized city official.

The illustration shows the proper method of installing boxes — ON PEDESTALS WITH INDICATING LIGHTS

THE GAMEWELL COMPANY

NEWTON UPPER FALLS 64, MASSACHUSETTS

In Canada: Northern Electric Company, Limited, Montreal

This is SOMETHING SPECIAL!

It's the modern Mack Type 45 Pumper, 500 gallon capacity . . . Mack-built throughout to meet stamina standards that have been unsurpassed for 35 years.

A powerful six-cylinder engine assures ample reserve for tough road conditions and the strain of continuous pumping. Exclusive Mack rubber Shock Insulators suspend the high rigidity frame. The pump is two stage, pressure-volume, centrifugal type—another Mack Fire Apparatus first.

Your fire department will welcome this Mack development . . . a pumper that brings progressive fire engineering advances to your community. Over 600 cities now depend on Mack apparatus for fire protection.

Mack Manufacturing Corporation, Fire Engine Dept., Empire State Building, New York 1, N. Y.

If your community needs additional fire-fighting equipment or replacements, think of Mack. Remember, Mack Fire Apparatus is backed by the greatest engineering resources in the industry.

Mack FIRE APPARATUS — *Performance Counts!*

Firemen

Volume 13 Number 5

WARREN Y. KIMBALL, EDITOR
ANNE BAILEY, ASSOCIATE EDITOR
CHARLES S. MORGAN, ADVERTISING MANAGER

Published monthly for the fire service members of the

NATIONAL FIRE PROTECTION ASSOCIATION

60 BATTERYMARCH ST., BOSTON 10, MASS.
A VOLUNTARY NON-PROFIT ORGANIZATION

PERCY BUGBEE, GENERAL MANAGER
ROBERT S. MOULTON, TECHNICAL SECRETARY
HORATIO BOND, CHIEF ENGINEER

Contents for May 1946

Fighting That Gasoline Tank Fire 6
North East West South 8
New Central Fire Station for Cohasset, Massachusetts . . 10
New "Industrial Fire Brigades Training Manual" . . . 11
50 Years of Public Service 12
Welcome to the Hub 13
Mechanical Foam 14
Getting the Right Headline, by Melvin R. Freeman . . 16
European Firemen to Meet in International Congress in Paris 17
Mutual Aid by Radio, by J. L. Franzen 18
Standard Uniforms for Nassau County Volunteers . . 19
Firemen's Training in Massachusetts 20
Proposed Legislation for New York State Safety Division . 20
Coming Events 20
How Well Do You Know Your "Line"? 22
Rekindles from Hot Topics 24
"Fire Fighting Practices," Unit I of Company Officer Training 25
Clarinda, Iowa, Cleans Up 25
Canton, Ohio, Inspection Program 26
Hose Drying Cabinet Popular 28
Gag Rule for F.D.N.Y. Withdrawn 30
Maryland Company Publishes Community Directory . 30
Fire Company Membership 34
Nine Members from Berkeley Fire Department . . . 34
West University Place, Texas 35
Manufacturers' Page 36

MANY communities are planning new fire stations to be erected as soon as building materials are available. One point that should be kept in mind when such stations are being planned is that they should be an example to the community of good, fire-safe construction and arrangement. All too many fire stations have been burned, apparatus *et al.* A fire station is in reality a garage, housing extremely valuable gasoline-driven equipment and with many of the attendant fire hazards of a garage. Incombustible construction should be used to safeguard this apparatus that provides fire protection for the community.

Another point to consider is that many fire stations are used as places of public assembly in the community. Frequently there are meeting rooms or halls located on the floor above the garage housing the apparatus. All places of public assembly, including fire stations, should have at least two means of exit as remote from each other as practical. In many stations a fire starting on the apparatus floor while a meeting was in progress on the floor above might prove dangerous to the occupants and certainly would be embarrassing. Often an open stairway from the apparatus floor is the only means of egress from the meeting hall which may be used for public entertainments.

Where the fire station houses the central fire alarm equipment for the community, it is recommended that this equipment be housed in a fire-resistive wing or structure with no physical means of access from inside the fire station. Thus if a fire does start in any part of the fire station proper, the fire alarm facilities of the community will not be jeopardized.

Remembering

We remember best the things most recent
We remember longest the things most stimulating
We remember best and longest the things which appealed to the greatest number of senses and in which we participated most wholeheartedly.

W. A. Ross, *Chairman,*
NFPA Committee on Firemen's Training

THE cover picture. On March 19, in the Navy Building in Washington, Assistant Secretary of the Navy, the Honorable John L. Sullivan presented the Navy Certificate of

Achievement to General Manager Percy Bugbee "in recognition of exceptional accomplishment in behalf of the United States Navy and of meritorious contribution to the national war effort."

In making the presentation, Mr. Sullivan made the following statement, "The NFPA provided outstanding service to the Navy in the field of fire prevention and fire protection engineering during the war period. Its staff members as well as its technical and engineering resources were placed at the disposal of the Navy and were utilized with great effectiveness by the Navy Department and the Naval Establishment."

Fiftieth Annual Meeting of the NFPA — Hotel Statler, Boston, June 3-7, 1946

Fighting That Gasoline Tank Truck Fire

FIRE DEPARTMENT INSTRUCTORS' FORUM

A group of fire department instructors have selected FIREMEN magazine as their medium for conducting a symposium on various types of fire fighting problems. They are hopeful that readers of the magazine will suggest types of fire problems they want studied for future presentations.

The group leader is Lieut. John A. Pearson, NFPA member and drillmaster of the Brookline, Mass., Fire Department. The first topic chosen was that of fighting gasoline tank truck fires.

HELLO FELLOWS! Drag up your chairs to the conference table. First, we should get acquainted. As your chairman, I am Lieut. John A. Pearson, of the Brookline, Mass., Fire Department.

To my left around the table we have Capt. Bernard J. Belcastro, Lexington Fire Department; Lieut. Arthur S. Oresteen, Everett Fire Department; and Lieut. John L. Martin, Newton Fire Department, and also all you firemen in the field whom we feel are here beside us.

And now, down to business.

Gasoline tank truck fires have become a problem of great concern to the fire departments throughout the country. In our discussion of the subject, let us keep our remarks broad and not confine them to any set condition. In this manner, we can bring out more points of value.

Tank truck fires fall into three general classes. The most common type is a fire about the truck motor. This is treated as any other automobile fire, provided we get there before fire spreads to the gasoline cargo. The second type is due to overflow at the top of the gasoline cargo tanks, due to expansion of overfilled tanks from heat. This type of fire may usually be controlled quite readily by cooling the tank with suitable streams and extinguishing overflowed gasoline. The most dangerous type of tank truck fire is that caused by a rupture of the tanks or connections due to an accident.

Peculiar to this type of fire are many special features to be taken into consideration to master the situation most effectively. This fire may occur in any section of our community, either day or night. Varied life hazards are created and must receive first consideration.

Lieutenant Martin, can you think of any special life hazards?

Lieutenant Martin: Yes, if the accident occurred in front of a schoolhouse during a school session. The children must be evacuated from the building at once. The likelihood of a serious situation is apparent. On the other hand, a night fire in the same location would have no further hazards than the building exposure. And in another situation, if it occurred in front of a hotel at night, the occupants would definitely be a matter of great concern. During the daytime the life hazard would not be as great.

Captain Belcastro: I have in mind the operator who may be trapped in the cab of this truck. A situation of this kind would necessitate quick work by the firemen. Should the cab be involved with fire, a fog nozzle with applicator held over the head of the rescuer would keep him cool, give him sufficient air and allow him to rescue

the operator. In extreme cases it might involve the use of more than one nozzle.

Lieutenant Pearson: That's fine. Now may I review some of the peculiarities of gasoline. We know that the vapors are explosive, flammable and heavier than air.

Lieutenant Oresteen: These fumes, being heavier than air, would flow like water through basement windows and doors and accumulate in the low spots. Catch basins and manholes in the street are especially dangerous if fluid and vapors are permitted to collect therein. Should the gasoline flow down to an accumulation of water, it would float on top of the water for considerable distance.

Lieutenant Martin: Vapors in basements and cellars of buildings are a source of danger due to ignition from heaters and other devices, causing explosion and fire. Occupants of these buildings should be evacuated and fires extinguished.

Captain Belcastro: Onlookers should be ordered to a safe distance from the fire zone to prevent injury in case of

explosion and extension of fire due to carelessly dropped cigarettes and matches.

Lieutenant Pearson: Now we are really getting warmed up to the subject.

In sizing up the fire, the officer in charge should immediately sense the gravity of the situation. He should call additional help for the protection of life, bring the fire under control and protect the exposures. He should also determine whether he has sufficient special equipment on hand to combat this type of fire.

Protecting the Exposures

Lieutenant Oresteen: All apparatus should be ordered to remain clear of the danger zone. All parked automobiles should be pushed from the area if sufficient outside help could be utilized. I do not believe we should assign our men to that task.

Lieutenant Pearson: What is on your mind, Captain?

Captain Belcastro: The topography of the location would definitely have to be taken into consideration in the size-up. Should the gasoline be freed on the side of a hill, the fluid would flow to the low spots and extend the exposure limits. Also the wind would carry the vapors to distant points.

Lieutenant Martin: All sources of ignition, gas and electricity should be shut off. Public utility companies should be notified to respond. Where overhead electric wires are in proximity to the fire (see picture on page 6) there is danger of the heat melting these wires and live ends dropping to the street. This would cause the added hazard of electrocution and the possibility of sparks and igniting or reigniting the gasoline.

The power should be shut off or the wires cut at the live side on the poles. Police could be utilized to keep persons away from this danger zone.

Lieutenant Pearson: The size-up has been well done. Simultaneously with

Continued on page 32

Closing in on the Fire

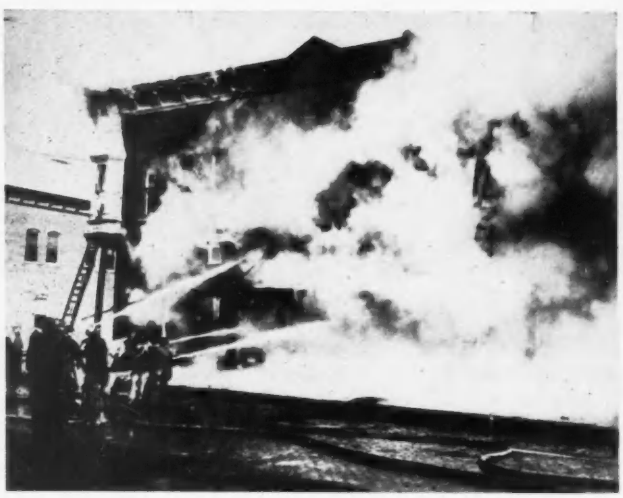
North East

ONE reason why fires hold the interest of the majority of the people is because of the great variety of personal interests subject to attack by flames. Almost all persons are endangered by fires in their homes to a greater or lesser extent.

On these pages we show a fire in a farm dwelling, a convalescent home, an airplane hangar, several business blocks, a large warehouse and a flour mill. Almost no business is exempt from the possibility of fire. Thus fire fighters must be familiar with the problems and hazards of almost every type of occupancy.

Alton, Ill. Fire followed a dust explosion occurring about 4:30 A.M. on March 16 in the five-story brick milling plant of the Stanard Tilton Unit of the Russell Miller Milling Company. The mill had a capacity of 4,000 barrels of flour a day.

Fire apparatus from St. Louis, the Western Cartridge Company and Milton assisted the Alton fire companies. The loss was estimated at $1,085,000.



Press Association, Inc.

Chatsworth, Ill. Fire on March 9 destroyed a general store and the Masonic Hall in the business district. The loss was estimated at $60,000.

This picture is a good illustration of the need of ventilation to enable fire fighters to locate and control flames at their source. Streams directed from the outside may be effective in preventing spread of the fire to exposed buildings but are often obstructed by interior partitions, stock and shelving so that the water fails to reach the fire.

A manual on **Ventilation Practices** is available from the A. & M. College Bookstore, Stillwater, Okla. (.30 a copy).

Memphis, Tenn. Fire, starting in sawdust under a 400-foot wooden loading platform, developed to three-alarm proportions, March 3 at 12:48 P.M. The loss may exceed $100,000.

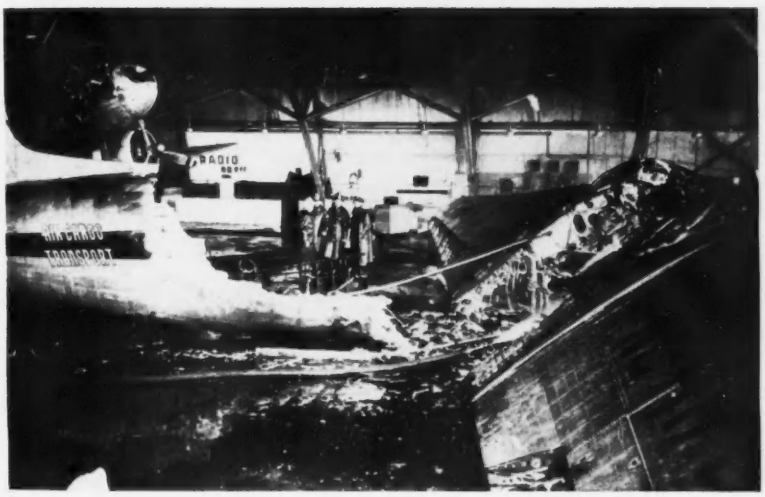
In spite of the strong wind, fifty-eight sprinkler heads opened inside the building to prevent the fire from extending into the warehouse. The metal roof over the platform also prevented flames from penetrating open windows on upper floors. Rolling steel doors opening off the platform were closed and delayed entrance of fire, although several buckled under the heat.

West South

Newark, N. J. Employees were working on a DC-3 transport plane, repairing a gasoline pet cock. Gasoline was dripping into a pail on the floor. When an extension light was dropped and broken it ignited the gasoline.

The fire department responded to three alarms, used twelve hose streams and foam equipment. One plane was destroyed and three others badly damaged in this fire of March 8. Newspapers placed the damage to the steel and concrete hangar alone at $75,000.

Scarboro, Maine. Fire started in a welding machine in a workshop adjoining this Maine dwelling and barn, February 26. While the owner led twenty-two cows, a horse and a pig to safety, a neighbor, Ralph B. Perry, started for the scene a half-mile away in his snowplow. It required fifteen minutes to get to the fire as the road had not been plowed. Perry drove the plow through the blazing shop between a chimney and a steel-hulled cabin cruiser, cutting an effective fire break and saving exposed property.



Acme

Tallman, N. Y. Fire started in a closet under the main stairway in this large frame convalescent home and cut off the escape of eight occupants on the second floor. Six of these persons, elderly women, died, although the fire fighters confined the flames to the central portion of the building around the stairway. The fire occurred on February 10.

It was reported that state law did not require fire escapes and other safety precautions if patients were not quartered above the second floor. The town council is now planning to adopt a fire safety code.

International

Minneapolis, Minn. Fires in one-story mercantiles, commonly known as "tax-payers," are difficult to confine to occupancy. There are usually unprotected openings between the basements of such shops and all too frequently party walls fail to extend to the roof.

This four-alarm fire of March 16 started in a display company shop and extended to two adjoining buildings.

Damage may exceed $95,000, according to newspaper accounts.

Press Association, Inc.

New Central Fire Station

for Cohasset, Massachusetts

ON these pages are shown plans for the new central fire station for the seacoast town of Cohasset, Mass., developed as a result of the special town committee appointed to discuss new facilities for both the fire and police departments. Top-ranking fire and police authorities agreed that a single building would be unsatisfactory for the two services. The architect advised there would be little or no saving effected by consolidating the fire and police stations.

The town of Cohasset has three fire stations. The present central station was originally two separate buildings, one of which was erected in 1883, the other a few years later. It originally housed hand-drawn and later horse-drawn apparatus. The present central fire station contains motorized apparatus and modern fire alarm equipment valued in excess of $50,000. The ladder truck has a clearance of only one inch of the apparatus room ceiling. Living facilities are inadequate for the permanent drivers stationed there. There are no facilities for drill practice.

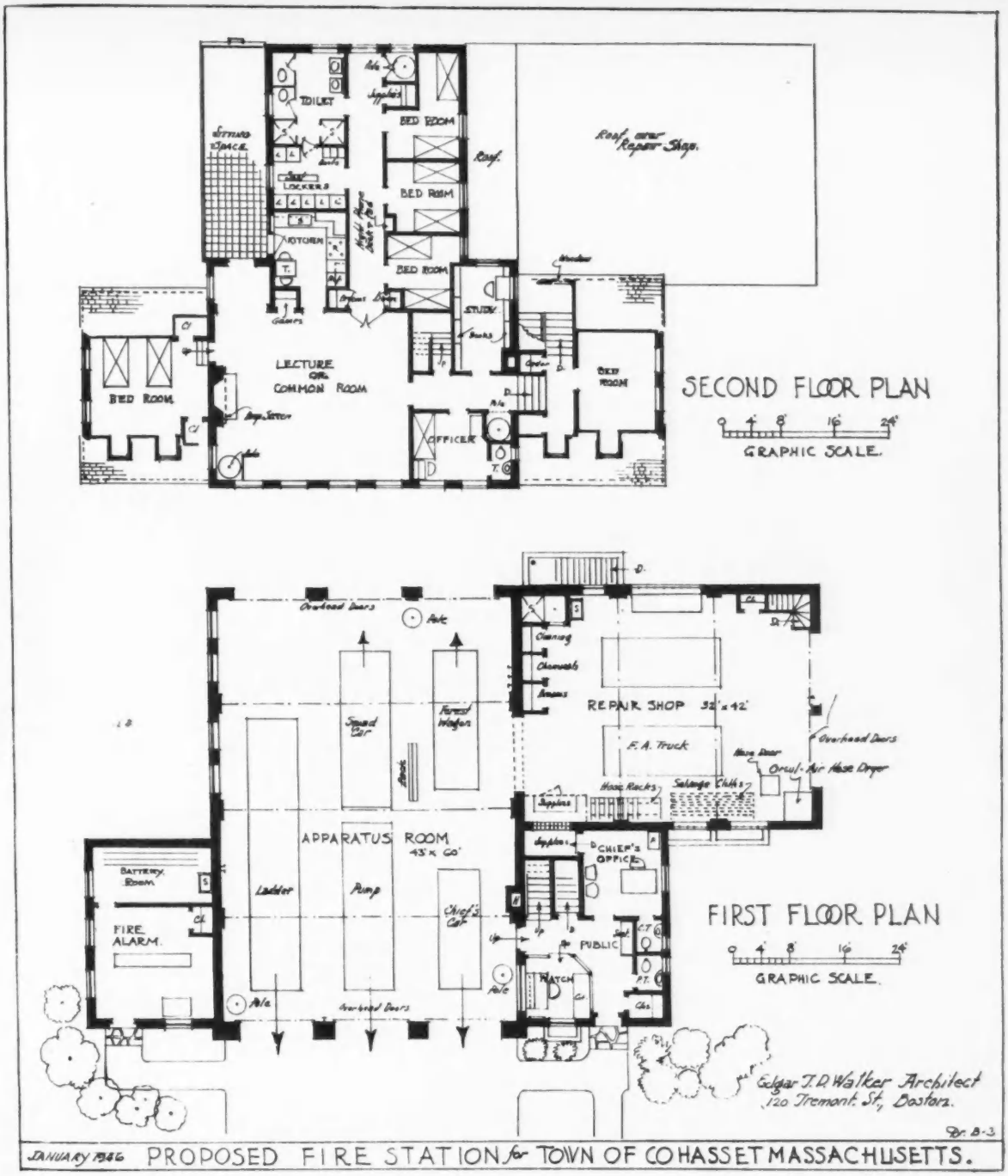
The new location has been selected on North Main Street, convenient to the business center of the town. It will also provide prompt response to other sections without the necessity of driving through the business district. There will be ample room for parking and for drills. The new central station shown in these plans will cost $98,500 and would be chiefly financed through a twenty-year bond issue.

Present building restrictions will delay construction until veterans' housing needs have been met, but the Cohasset Fire Department (member NFPA) can look forward to having one of the finest fire stations in any community of 3,000 permanent population.

Members of the fire department on the committee include Chief Joseph L. Oliver and Deputy Chief Clarence S. Reddy.

The floor plans are worth considerable study. Note the arrangement of the repair shop, the fire alarm headquarters, the excellent location provided for the chief's office, and the position of the watch desk where the man on "patrol" duty can receive visitors to the station, at the same time maintaining a lookout over the apparatus room.

It is also interesting to see that the repair shop wing has garage space for a fire alarm truck, hose drying cabinet, hose storage racks and salvage cover drying poles. The station was also designed to provide adequate closet space, bunk rooms for paid drivers and officers on duty, and a common room available to the call firemen.



"Industrial Fire Brigades Training Manual"

THE NFPA presents a 1946 revised edition of the popular *Industrial Fire Brigades Training Manual*. The original edition issued during the war was used as a training guide by hundreds of industrial fire brigades throughout the United States and Canada. The new edition is published in 6 x 9 inch book form, 188 pages well illustrated with photographs and drawings.

The revised edition, the work of a special subcommittee of the NFPA Firemen's Training Committee, was approved for publication by that Committee. The revision subcommittee consisted of Chairman W. A. Ross, consultant, U. S. Office of Education; Secretary Emmett T. Cox, fire department instructor, Western Actuarial Bureau; Robert Hamm, Director Firemen's Training, Indiana Fire Service Training Schools; R. J. Douglas, Chief Fire Marshal, Beach Aircraft Corp., Wichita.

The new edition contains the following chapters

INTRODUCTION. Organizing and training a plant fire brigade

1. Plant Fire Protection
2. Determining Fire Causes and "Spotting" Fire Hazards
3. Making Forcible Entry
4. Handling Rope
5. Using Minor Fire Extinguishers
6. Handling Ladders
7. Handling Hose
8. Producing Effective Fire Streams
9. Ventilating
10. Planning Fire Fighting Procedures
11. Salvaging
12. Caring for Fire Brigade Equipment
13. Making Periodic Inspections of Fire Protection Equipment

Price $1.50 per copy.

50 Years of Public Service

Public Service Building, 60 Battery-march Street, Boston. Headquarters of the NFPA are located on the ninth floor.

FIFTY years ago a small group of public-spirited New Englanders met after work in a small office in Boston, Mass., and declared war on fire.

It is fitting, therefore, that the outgrowth of this gathering, the world-wide NFPA, which today has members in 37 countries, should celebrate its golden anniversary June 3–7 in the city of its birth.

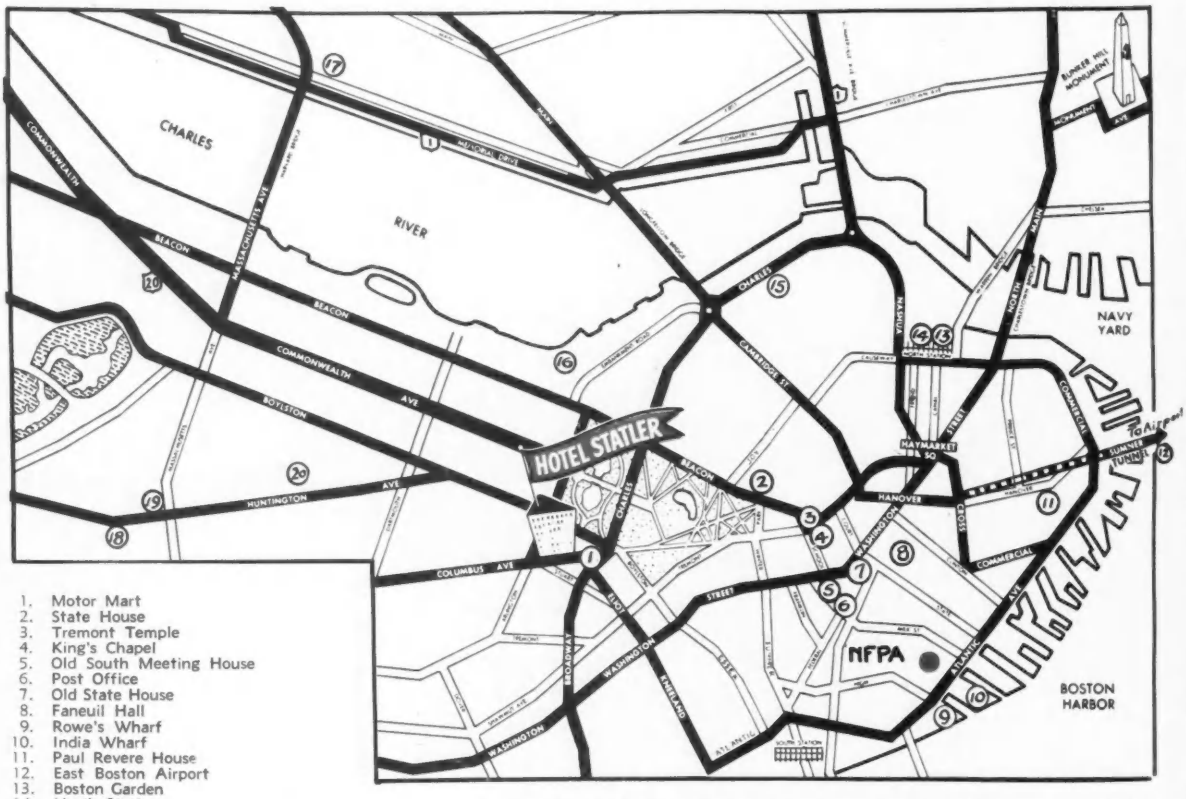
The fiftieth annual meeting will be the most impressive convention in the history of the organization. Internationally-known authorities will discuss subjects ranging from the latest in fire department evolutions to the atomic bomb.

Firemen are keenly aware that fire threatens the reconversion program. Post-war developments in the fire control field will come into full discussion at these sessions. And now that the NFPA committees are in full swing again in this first post-war year, firemen can expect an interesting, "lively" meeting. The forum-type of discussion will give plenty of opportunity for "give and take" information.

A national radio hook-up, recognition in the news-reels, the daily press and magazines, will carry the message of the NFPA to millions.

The meeting will have its lighter side, too. An informal dinner dance . . . music . . . humorous skits . . . an afternoon boat ride among islands of Boston Harbor . . . fire scenes in movies.

And wives are assured of a most interesting week, too, with special events, including a welcoming tea, boat ride, fashion show, movies, tours to points of historic interest in Boston and vicinity, and other events.



1. Motor Mart
2. State House
3. Tremont Temple
4. King's Chapel
5. Old South Meeting House
6. Post Office
7. Old State House
8. Faneuil Hall
9. Rowe's Wharf
10. India Wharf
11. Paul Revere House
12. East Boston Airport
13. Boston Garden
14. North Station
15. Massachusetts General Hospital
16. Esplanade Concert Shell
17. Massachusetts Institute of Technology
18. N. E. Conservatory of Music
19. Symphony Hall
20. Mechanics Building

FROM THE HOTEL STATLER, the convention headquarters, as a starting point, the visitor can explore, within walking distance, many of Boston's historical and cultural sites. This map, which outlines the principal streets and points of interest in the heart of the "Hub," shows, among other sites, the headquarters of the National Fire Protection Association.

Paul Revere . . . patriot

WELCOME *to the* HUB

FIREMEN who visit this New England city will find Boston unique, unlike any other city in the world.

They'll want to go sightseeing because "the Hub" is a place that should be seen. The old, narrow streets, the strange blending of the old and the new and the rich historical associations . . . the spirit accumulated over a period of three centuries.

Boston's great historic past is seen everywhere. Many of its most famous landmarks are within walking distance of the Hotel Statler, convention headquarters. The Bulfinch-designed State House, the Old North Church, where lanterns were hung to signal to Paul Revere that British troops were marching on Lexington and Concord . . . the frigate "Constitution", familiarly known to all Americans as "Old Ironsides" . . . the Paul Revere house, full of historical articles . . . Faneuil Hall, the "Cradle of Liberty."

A leisurely stroll through Boston's streets will reveal any number of quaint, historical points of interest. The Public Gardens, only a stone's throw from convention headquarters, contains an artificial pond where during summer months graceful swan boats glide gently along in the peaceful scene — the quiet rest of the country in the heart of New England's metropolis. And the Arnold Arboretum is internationally famous.

The visitor shouldn't pass over the opportunity to dine in one of Boston's old eating houses.

And while on the subject of history, it is worth mentioning that the building which houses NFPA headquarters is surrounded by reminders of Boston's distinguished past. Batterymarch Street, which bounds the building, is one of Boston's oldest streets. Built in 1708 as Battery March, the street supplied a waterfront route from the homes on Milk, Water and King Streets to the South Battery, then newly-completed at the foot of Fort Hill Fort Hill Square is now noted as the site of a park fronting the inspection department of the Associated Factory Mutual Companies (member NFPA). It is also the location of the famous Fort Hill Square fire station housing some of the busiest companies in the Boston Fire Department.

From the window of the NFPA general manager's office one can scan Boston harbor. Also nearby are sites of the Boston Massacre and the Boston Tea Party and the shipyards wharves and warehouses which have since developed and lined the waterfront.

"Old Ironsides" . . . never defeated

The State House . . . "Bulfinch" design

Photos, Courtesy Boston Chamber of Commerce

Old North Church . . . on April 18, 1775
Its lanterns were a signal

MECHANICAL FOAM

Photograph and source material for this article were provided through the courtesy of the Pyrene Manufacturing Company, Newark, New Jersey

FIRE is generally extinguished in one of two ways: by cooling the burning material to a point below its ignition temperature, or by smothering it — separating the burning material from the air which supplies the oxygen essential to combustion.

Water is an effective cooling medium for ordinary materials, such as paper, cloth and wood, and therefore a satisfactory extinguishing agent for fires in these materials. But fires in oil, gasoline and other flammable liquids, are not readily extinguished by a solid stream of water. It is not miscible and sinks through them without achieving its normal cooling effect and may overflow a tank of burning liquids.

One satisfactory way to extinguish a flammable liquid fire is to smother it. Foam does this job because it remains on the surface of most liquids in the form of a flexible blanket that prevents access of air.

So-called "chemical foam" was the first type developed for extinguishing flammable liquid fires. It is produced by mixing an acid solution and an alkaline solution. The reaction results in a discharge consisting of minute, gas-filled bubbles. Because of its appearance, the mixture was given the name "foam."

Mechanical foam is produced by the incorporation of air into a solution of water and foam-making fluid, in somewhat the same manner that soap bubbles are produced by soapy water when air is blown through a bubble pipe.

No matter what the capacity of the mechanical foam equipment, or for what special purpose it has been designed, the basic principle is the same. To a water stream under adequate pressure, a small percentage of foam-making fluid is added; air is added to the resulting solution. Then the churning together of air, water and foam fluid produces foam.

Mechanical foam may be of the "low-expansion" or "high-expansion" type. The compound which produces low-expansion foam involves the use of hydrolized protein material and it is therefore known as "protein" foam compound. The protein-type has been used by both the British and United States Navies and supplied in vast quantities.

Mechanical foam, while an effective smothering agent, is also an effective cooling agent. Mechanical foam is considered suitable for both Class A and B fires (ordinary combustibles; and oils, greases and flammable liquids).

"Fog-foam" is often desirable and can be secured by using mechanical foam and certain types of fog nozzles. It is especially employed by the armed forces in aircraft fire fighting where the combination of the waterfog technique and the foam blanket (to protect against reflash) makes for effective extinguishment.

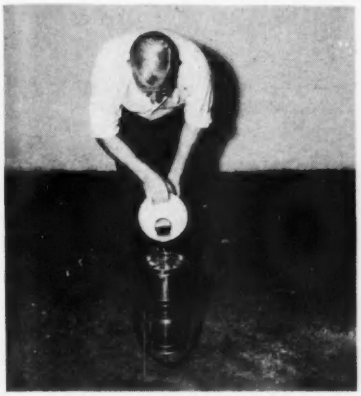
The expansion factor of foam is particularly valuable where a limited amount of water is maintained, such as fire apparatus, booster tanks, cisterns, small ponds and stock tanks. In Europe, where public water supplies are much more limited than they are in the United States and Canada, the use of foam has increased the effectiveness of available water supplies several-fold.

Mechanical foam can be discharged at high velocity so that the range or "reach" of the stream compares favorably with plain water streams. There is no limit to the length of hose that may be employed, as long as pressure is maintained to overcome friction loss and provide a satisfactory nozzle pressure. This is because the foam material is in liquid form and is transformed into foam at the nozzle.

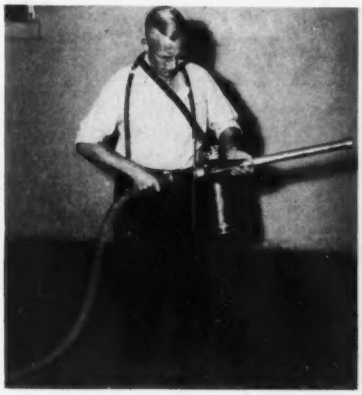
Operation of foam-making equipment may be continuous, as long as supplies of foam fluid are on hand. Either fresh or salt water may be used. The equipment may be operated by one or two men.

Mechanical foam flows across a burning liquid rapidly "sweeping" the fire out as it advances.

How Playpipes Are Operated



(1) Fluid is poured into carrying container.



(2) Playpipe is attached to hose line.

(3) Pick-up tube is coupled to playpipe.

(4) Container is hung over shoulder, pick-up tube dropped into container, and when water starts operator goes into action.

(5) Operation may be continued as long as water and liquid are available. More liquid is simply poured into container.

(6) For good sized fires, larger playpipes may be used with single or double proportioning tanks coupled into water lines.

The water, air and foam compound are automatically proportioned to produce a maximum volume of foam. The weight of foam fluid required for a given volume of water is much less than the weight of dry chemicals required, hence less material need be stored and transported to the scene of a fire.

The mechanical foam spreads into recesses and around obstructions. It floats on liquids and clings to solids, resisting destruction by heat as it flows across a burning surface. When allowed to remain on solid objects until the liquid has evaported, the dried residue may be easily dusted or washed off.

Mechanical foam may be generated either in properly designed playpipes or in stationary or portable foam-makers. A playpipe can be attached to nearly any water line of adequate pressure, in which case it serves also as a hose nozzle.

Playpipes may be equipped with pick-up tubes through which the foam fluid is automatically drawn in fluid proportion. Should a water stream alone be desired, the operator simply withdraws the pick-up tube from the container of foam-making fluid.

Playpipes are adaptable for immediate attachment to standard hose lines, small hand lines or other existing fire stream equipment. Any type of motorized apparatus is suitable for carrying foam playpipes to a fire.

Foam-makers, also, are available in a variety of capacities. Foam fluid may be drawn from a proportioning tank or forced into high pressure water lines by an inductor. Water may be drawn from any source by any means that insures adequate pressure. The foam fluid may be introduced at the source of water supply or at a point between the water supply and the foam maker.

"Fire Fighting"

THE Department of Trade and Industrial Education of Oklahoma A. & M. College has compiled a new 76-page booklet entitled *Fire Fighting*, an Induction Course in Fire Service Training.

"The Job of Being a Fire Fighter" is examined thoroughly in a section covering such topics as the Story of the Fire Service, the Purpose of the Fire Department, Knowing the Tools with Which a Fire Fighter Works, Riding a Truck to a Fire.

This pocket-size book contains photographs and drawings to illustrate every subject in detail. Copies of *Fire Fighting* may be ordered from the A. & M. College Book Store, Stillwater, Okla.

1000 HOMELESS BY FIRE
CHILD STRIKES MATCH, STARTS
Porches Ablaze Cause Injury to Fireman
Getting the Right Headline
Today
Hundreds Lose
Fire Losses for One Year Would Build 75,000 Homes
Warns Against Haphazard Construction
Fire Expert Points to Hazards in Renovating Present Homes
60 Guests At Winthrop
LOCAL FIRE LOSS BELOW AVERAGE
Loss $23,067, 94c A Per
As Against $2.56 Average
New York, May 11—Potts
turned in a better record of
prevention and control during
past year than did most cities in
country, according to data just
sembled by the National Fire
Nearby Village Sa
by Shifting of Wind
New York, June 2. (AP)—Am
has the highest fire loss per c
of any civilized nation in
world.
POOR CONSTRUCTION CAUSES FIRE LOSSES
Discharged Tacoma Veteran Is Burned

By

Melvin R. Freeman

NFPA Public Relations Manager

This is the second in a series of articles by Mr. Freeman dealing with public relations work in fire departments.

PROBABLY no phase of fire department public relations causes as much contention and nips as many promising fire department programs in the bud as do "unfortunate" newspaper accounts of fires. They seem to crop up like weeds in an otherwise well-tended garden.

The inaccuracies of the press in assessing fire losses have caused more hard feelings between fire departments and papers than any other single item. It makes the fire chief "hotter than a three-alarm fire" when he learns that an insignificant grass fire has been emblazoned as a "threatening conflagration" or that a $50 fire in Farmer Brown's chicken coop mysteriously skyrocketed to a $5,000 blaze in the local press. Legitimate losses are hard enough to cope with, without the added burden of imaginary large losses.

Sensational news coverage of fires which may satisfy the city editor (until the chief comes charging in the newspaper office about some exaggeration or omission) seldom satisfies the fire department. If the fire loss figure is reasonably correct, perhaps the local paper has placed too heavy an emphasis on scantily-clad females evicted by flames rather than the heroic efforts of the firemen. Conditions when the fire department arrived are important and when the fire department has made a good stop it should at least merit as much space as a good baseball catch in a local sports contest. Improper titles such as substituting "District Chief" for "Deputy Chief" haven't made the situation any happier.

Armchair strategists are by no means limited to wartime. Perhaps, through lack of knowledge, the local paper has inferred that available equipment has not been used effectively, or that fire departments lost undue time in responding to a fire. Then, too, perhaps the paper has regularly deified some particular member of the fire department, because he is colorful or popular, to the detriment of other individual members. Lack of technical knowledge or understanding of fire department problems, or even editorial laziness, has caused many a fire department to look rather silly when the paper is published.

Yet as we pointed out in the April FIREMEN ("Public Relations Pays Dividends"), it is hardly all the fault of the poor newspaper. Dailies especially are put out under great pressure and speed. Papers want to be as accurate and as fair as possible but they haven't got time to query several sources to get a fact when they should get their information from a regularly designated single person. You've got to make the reporter's job easy if you expect the right headlines. As we pointed out before, if the reporter is going to have to guess, he's going to make the story more sensational than factual, for it makes a better story that way.

Make Their Job Easier

It is of fundamental importance that you impress your local press that you are going to do everything possible to make their job easier. Probably the biggest stumbling block in any fire department public relations program has been the unavailability of department information to the press. You make the newspaper's job easier and they'll make it easier for you when you ask support for that salary boost or new ladder truck.

As was pointed out in the first public relations article, the first plank in any program is mutual trust and understanding. If there have been difficulties between press and fire department in the past, forget them. Sweep out the suspicion, bury the hatchet and start fresh on your publicity program. Make that open door policy work in practice

as well as theory; shine up the "Welcome to the Press" sign on the fire house door.

Now let us assume that all is forgiven between newspaper and fire department. The chief has indicated his desire to be a better newspaperman and the local reporter has evidenced his ambition to become a better fireman.

How can we insure this golden situation? The answer is relatively simple. There are bound to be honest mistakes. The chief may underestimate a fire loss and there is always the chance of an embarrassing typographical error at the paper. Yet a feeling of reasonable satisfaction can be maintained between both parties.

Tell Him Your Story

First, generally the same reporter will cover central fire headquarters and fire stories generally. Make a friend of him. Spend a little time to educate the fire reporter. Encourage him to ask questions; demonstrate fire equipment to him; explain the difficulties in fighting certain type fires; if you have a poor water situation, tell him about it. If you have a bad fire alarm system, tell him about that; publicity may rectify the situation. Educate the press about seasonal fire fighting problems; about icy roads and frozen hydrants in the winter; of the relation between the careless smoking hazard and abnormal numbers of grass and brush fires in the spring and fall; of juvenile delinquency and false alarms. Correct the still-all-too-common impression that fighting fires is slightly more work than keeping the brass shined and playing cribbage at the fire station. You've got quite an educational job to do. Tell the press your side of the picture so they will educate your neighbors as to why you need that new pumper or station when you ask for it. But don't use your regular fire department news as a political springboard to feature some member of the department. If you've got some political utterance write a letter to the editor or get a soap box.

About the only time many citizens see firemen are (*a*) when the department is responding to a fire, or (*b*) when townspeople go to the station to get a fire permit, or (*c*) when the firemen are selling tickets to the firemen's ball. Your public relations job is to get your citizens to know your department and its problems better. Take the mystery out of fire fighting. It will pay you big dividends in concrete forms of better equipment, better pay and more manpower.

Second, let's tackle this bugaboo of the fire loss. It's a tough job to get a close approximation of the loss but you can give them a better figure than the one reporters would otherwise get from a crystal ball or the police blotter. You've probably got someone in the department that has a knack for estimating losses or knows what the final loss has been at similar recent fires. Use him, bearing in mind that it is much better to be conservative in estimating the loss at the time of the fire. Large and erroneous losses are a reflection on the department and often may be used to support higher fire loss claims made to fire insurance companies to the embarrassment of the department. Here is a cardinal principle for *anyone* giving out the fire figure: don't talk in glittering generalities about "the largest loss in the history of the department." That won't satisfy the press.

The reporter has got to have some figure and have it quickly. Someone who is pretty good in estimating losses could be regularly designated to assist the officer in charge of the fire in giving out a conservative figure. Then after a check with building officials, fire insurance company, owner and occupants, you could release a follow-up of the actual fire loss and cause, with lessons of the fire. Such a system may show the need for more accurate loss records, maps and statistical data, but this would go a long way in taking care of this thorn in the side of your public relations program.

The Contact Man

Along with the idea of having a definite person for the press to contact for correct fire news, you could have a public information officer much like Army and Navy agencies. When a civilian agency wants a particular fact he goes right to the resident "PIO" (public information officer). Your drillmaster or chief of the fire prevention bureau or some other well qualified officer might make an excellent press contact man and would be at the scene of every fire to service the press with correct details as to officers in charge, companies and units at the fire and other details of fire department operations.

It would simplify things all around if you would issue a general order going out to all stations, with copies to press and radio representatives to explain how department publicity will be handled and who will handle it, so that any inquiring reporter will not have to make the present door-to-door canvas to get his information. Realize that every fire is news and that the press want to cover almost every fire. Have a workable system so that when the reporter wants a fact he will know to whom to go. Estimate your losses conservatively at the time of the fire and follow up the initial fire story with details of the actual damage, loss and cause the next day, if possible.

If you don't supply the press with correct information, you can't expect to get the right headline or treatment when news affecting the fire department is printed.

Mr. Freeman, who has returned to his duties as manager of public relations for the NFPA after two years with the U. S. Navy, will gladly assist firemen in planning and improving public relations programs. Mail should be addressed to Melvin R. Freeman, NFPA Public Relations Manager, 60 Batterymarch St., Boston 10, Mass.

★ ★ ★

European Firemen to Meet in International Congress in Paris

THE big pre-war meetings of fire department people from continental Europe before the war were certain international congresses and expositions which were held in Paris in 1929, 1931, 1934 and 1939. Out of these meetings came the organization of the CTIF (the Comité Technique International de Prévention et d'Extinction du Feu). Translated, this is the International Technical Fire Prevention Committee. It is announcing an International Congress, the first since the war, in Paris, July 17–21.

The congress plans to devote a large part of its program to demonstrations of modern fire apparatus. Conferences are also scheduled to discuss problems in the reorganization of fire departments following the war, also to discuss general lessons of the air war and the protection of hazardous industries.

The NFPA executive office has received from M. André J.-L. Breton, a cordial invitation to American fire department or fire protection people who may be able to attend the congress. Any reader likely to be able to attend may secure a copy of the program on request to the NFPA executive office.

Mutual Aid by Radio

Clackamas County, Oregon

by J. L. Franzen, General Manager
Oregon City, Oregon

DURING the days of civilian defense, it was necessary to co-ordinate service between communities against the disaster that might occur due to enemy action. After this danger had subsided, the idea of co-ordination for mutual assistance continued. Disaster, particularly by fire, may befall a community when least expected, and by organized mutual assistance lives and property could be saved. This would apply not only to incorporated cities and towns but also to the territory between.

The stumbling block in the way of carrying out the plan of mutual aid for fire was the fact that fire equipment had to be allowed to move outside the city limits. When the equipment left the city, it was out of service so far as that city was concerned. It was found that the difficulty could be entirely overcome by a system of communications. The only suitable means was by radio, a system whereby each piece of equipment could be in touch with the other, or a master station which could direct equipment to the scene of the fire or to cover in when another community had dispatched its equipment.

Having long had the idea of radio communication for police and fire departments, application was made on February 23, 1944, to the FCC for a construction permit to construct a radio station on a frequency of 33,500 kc. with 50 watts power and to install mobile units on the Oregon City police cars with 30 watts power each. The application granted, the equipment was purchased and installed. A few months later, application was made to install two mobile units on the same frequency on two Oregon City Fire Department trucks. This was also granted.

While the installations have been in service less than two years, circumstances continue to arise to prove the wisdom of the installation. The two most frequent being when equipment has been dispatched to the scene of a fire and more equipment is required, no time is lost in obtaining this additional equipment through the aid of the communications system. Another circumstance arises when all radio-equipped apparatus has been dispatched to cover one or more calls and another call is received. By radio, additional equipment can be dispatched or equipment in service could be shifted from one location to another.

The communications equipment installed on police and fire apparatus in Oregon City has proven itself many times. It seemed that it was now time to determine whether or not the cities located in Clackamas County were interested in a mutual assistance plan. With this in mind, the fire chiefs from the various departments of the county were called to a meeting to determine their views on the mutual aid plan. The plan having been approved, another meeting was called at which both the fire chiefs and city councils were invited. At this meeting the plan of mutual aid in Clackamas County was approved.

After each city council had officially approved the plan, the writer was requested to assist them in making their applications to the FCC, and, after approval was obtained, to proceed with the purchase of the equipment. The applications to the FCC were made on May 24, 1945, and in due time were approved and the equipment purchased. It is now installed and the system of mutual aid between the cities in Clackamas County is in force.

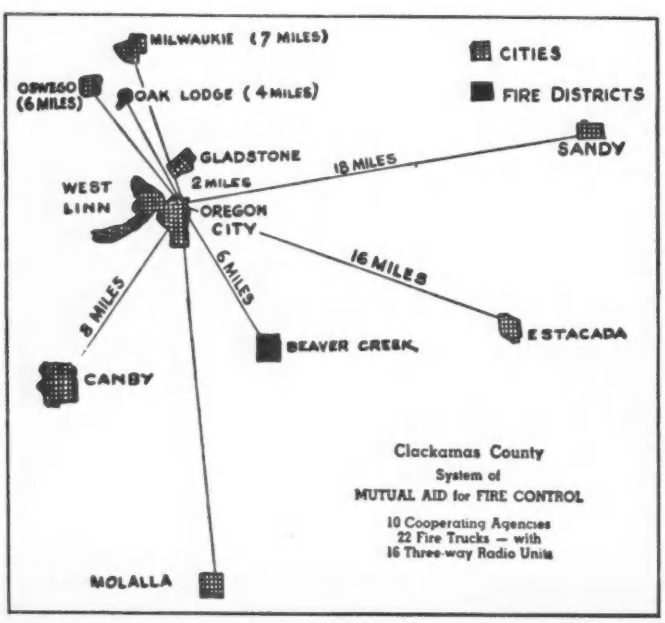
Since the installation of the equipment there have been two notable fires at which the system has proved itself. One was a sawmill fire in Molalla and the other a business block in the city of Milwaukie. In both cases, a great deal of property was saved due to the prompt response of additional fire equipment through the communications system.

The participating municipalities, with the number of mobile units installed on fire equipment, are as follows:

Oregon City	2
Canby	1
West Linn	3
Gladstone	1
Sandy	1
Molalla	1
Milwaukie	2
Oak Lodge Fire Protection District	1
Beaver Creek Fire Protection District	1
Clackamas County	2

The master station or transmitter is located in Oregon City and operated by the Oregon City Police Department. An operator, who receives and transmits all messages from the master station, is on duty twenty-four hours a day.

The mutual aid plan of Clackamas County, in addition to fire and police, includes other municipal services as they are needed.



Standard Uniforms for Nassau County Volunteers

UNIFORMS worn by volunteer fire departments throughout the country have varied widely and in many cases showed considerable ingenuity on the part of the fire department members in providing a creditable parade uniform. In the early days of the country, volunteer firemen were known for their red shirts, but when the New York City Paid Fire Department was organized in 1865 and changed to the blue uniform, the red shirt was on the way out except as a symbol of many of the veteran firemen's organizations. Most of the volunteer fire departments throughout the country have followed the desirable practice of adopting uniforms closely resembling those of the professional fire fighters in the nearest big city. For example, volunteer fire departments in the greater New York area usually have uniforms resembling those worn by officers and men in New York City. Firemen in suburban areas near Chicago are apt to adopt the Chicago uniform as official. Firemen in New England usually copy the Boston uniform.

In this connection, the following recommendations for a standard uniform for the volunteer firemen of Nassau County, New York, which were approved by the Executive Council of the County Firemen's Association last September may be of interest:

"The recommendations for a standard uniform for Nassau County's volunteers originally adopted on May 16, 1939, reviewed and again approved by the Executive Council on September 11 last, are briefly summarized as follows: STYLE: Double breasted, open throat, with two rows of buttons (chromium for those ranking up to and including captains, and gilt for chiefs and assistants). This is New York City's standard for officers. MATERIAL: 14 oz. all worsted closely woven serge. CAPS: Summer style, blue as used by New York Fire Department for year round use of all but officers, company officers to use all white cover or all white cap in summer, department officers to use white cover or white cap in summer and blue cap in winter with velvet band at base. Hat straps of all below officership to be black. Officers hat and collar ornaments to match color of buttons specified. Ex-chiefs to wear blue caps the year round. BADGES: Not to be worn on coats, as in New York City. SHIRTS: Detached collar, or non-wilt Jayson or Trubenized type attached collars, shirts to be white for all officers, light blue for others. TIES: Black four in hand. Black shoes and socks should be worn. White cotton gloves to be worn on all formal occasions."

For fast work on a ladder use

INDIAN FIRE PUMPS

5-Gal. Tank Carries Slung on Back Leaving Arms Free

MEN with INDIAN FIRE PUMPS can go up a ladder in a jiffy and put out fires in buildings and on roofs with amazing speed. In a matter of seconds they are off the truck and covering the blaze with a pressure stream that extinguishes the fire before it can spread. Nozzle is adjustable to a coarse spray or fog mist.

The wide variety of uses for INDIAN FIRE PUMPS in fighting indoor and outside fires has won the confidence of departments all over the United States who use thousands of them as standard equipment. Clear water — no chemicals — does the job. NOW is the time to order more INDIAN FIRE PUMPS for fighting grass, awning, roof, rubbish, building and spot fires this summer.

D. B. SMITH & CO.

411 MAIN STREET, UTICA 2, N. Y.

Pacific Coast Branch

Hercules Equip. & Rubber Co., 435 Brannan St., San Francisco, Calif.

Send for Catalog

Firemen's Training in Massachusetts

From the Division of Vocational Education

THE highly organized and complex features of modern civilization require that firemen shall have their training placed on an organized and professional level. This is the task which the Massachusetts Chiefs' Club has asked the Vocational Division to help them accomplish. Please note that the request for this educational service originated with the chiefs as a group for the Commonwealth. On the zone or local level, the initiative must also originate with the chiefs and departments involved. The office will attempt to render any educational service requested by the fire department chiefs or others who have legal responsibilities for fire fighting or fire prevention.

Requests for assistance in fire department training programs are continuing. With the war over and with increased resources with respect to training, it is definitely planned:

1. To organize any zone center classes requested; this must be done through the chief of the department serving as a zone center. Requests for such service should be addressed either to the zone center chief or to M. Norcross Stratton, Director of the Division of Vocational Education.

2. To organize local department classes through the zone center set up when requested to do so.

3. To offer an instructor training course for fire department instructors this spring.

4. To offer, in cooperation with the fire marshal, an instructor training course for fire department personnel engaged in fire prevention responsibilities.

5. To continue each month a program of professional improvement for fire instructors detailed by their respective chiefs to serve in the zone school organization.

6. To conduct, whenever requested, courses in supervisory responsibilities for officers of fire departments.

As part of the department's program for the returning veteran, the division of University Extension offers free instruction in all its course, both class and correspondence. Of particular interest to fire fighters, both actual and prospective, is the course which the division offers in preparation for Civil Service examinations. There is an excellent correspondence course which helps men already in the fire service to prepare for promotional examinations. Many Massachusetts firemen can testify to the splendid assistance afforded by this course.

There is also a correspondence course to prepare for the entrance examination. Class courses will be organized in the larger centers throughout the state as soon as an examination is announced. Extension authorities will be glad to cooperate with any group of veterans wishing correspondence instruction in this field.

The modern fireman has had his usefulness extended far beyond the demands placed upon his earlier counterpart. Today he must know something of chemistry, physics, hydraulics, and pass judgment and skills for the controlled use of extremely intricate and expensive equipment. Only by an organized and selective system of education can he be afforded the proper preparation and upgrading for his duties.

There are several phases of the training required. We have already referred to the controlled use of intricate and expensive equipment. Skill of eye, hand and judgment must be developed and kept alive for this. Since the fireman's life, the lives of his fellows and the lives of the public are at stake at times, this skill should be developed to the highest possible standard.

Skill alone, however, is not sufficient. There is much of technical information which must be thoroughly learned and judgment developed with which to exercise that knowledge intelligently. In each of these, the fireman needs organized training of professional level. Working together, the practical educator and the practical fire fighter trained as an instructor can accomplish much.

Proposed Legislation for New York State Safety Division

ON March 11, Gov. Thomas E. Dewey of New York sent a special message to the New York State Legislature recommending the organization of a new State Executive Department to co-ordinate public safety activities. This Executive Department, under terms of an act introduced into the Legislature on March 13, would contain a Division of Safety under a director appointed by the Governor. The Division would contain a Bureau of Safety and Accident Prevention, a Bureau of Fire Mobilization and Control and a Bureau of Police Mobilization and Activities. Among the general functions of the Division of Safety are the following specific proposals:

Continued on page 26

Coming Events

May 7-10—Illinois, Decatur. Regional Fire School. Champaign, DeWitt, Macon, Moultrie, Platt and Vermilion Counties.

May 13-15—Minnesota, St. Paul. Northwest Fire School.

May 13-15—North Dakota, Wahpeton. North Dakota Fire Service School, sponsored by the North Dakota Firemen's Association.

May 13-15—Oregon, Seaside. Conference and fire school of the Oregon Fire Chiefs' Association.

May 13-18—Ontario, Toronto. Provincial Fire School.

May 14-17—Illinois, Pekin. Regional Fire School. Fulton, McLean, Tazewell and Woodford Counties.

May 21-24—Iowa, Ames. 22nd Annual Iowa Fire College.

May 21-24—Illinois, Kankakee. Regional Fire School. Ford, Iroquois, Kankakee Counties.

May 28-31—Illinois, Quincy. Regional Fire School. Adams, Brown, Hancock, Pike and Schuyler Counties.

June 3-7—Massachusetts, Boston. 50th Annual Meeting of the NFPA, during which the Firemen's Training Committee will meet.

June 4-7—Illinois, Rock Island. Regional Fire School. Henry, Mercer and Rock Island Counties.

June 6-8—Utah, Salt Lake City. Second Annual Utah State Firemen's Training School.

FWDs are DOUBLY SURE of getting to fires Fast, with Safety

Just as surely as doubling 2=4, there is double the assurance of making every fire run with maximum speed and safety when you operate FWD four-wheel-drive Fire Apparatus. With power and traction on all four wheels, FWD apparatus is substantially safer and surer on the road; hazards to firemen and dangers to users of streets along the course of a run are materially reduced. FWD engineers will be glad to consult with fire chiefs and commissioners, and offer recommendations to meet your community's needs. Write for bulletin.

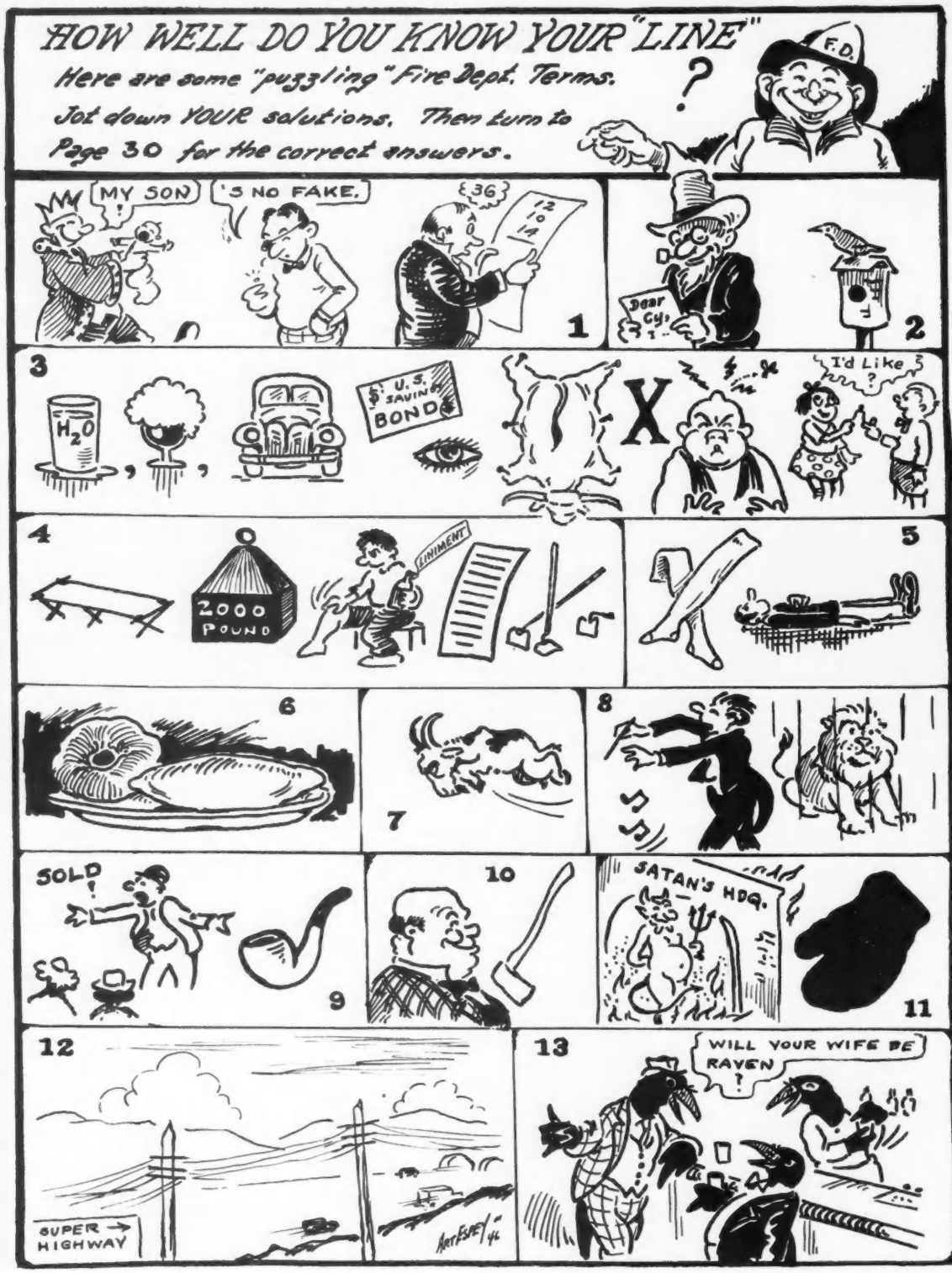
THE FOUR WHEEL DRIVE AUTO COMPANY
CLINTONVILLE, WISCONSIN
Canadian Factory: KITCHENER, ONTARIO

FOUR-WHEEL-DRIVE

A "Plus" that Pays in Many Ways!

For 36 years, owners have said: "FWD—the Best Truck Built!"

THE FASTER • SAFER FOUR-WHEEL-DRIVE *Fire Apparatus*



Clues to Puzzle Pictures: 1. This one will get you up in the air. 2. Legend had it a woman. 3. Knowing your A B C's helps. 4. Nope, not nylons! 5. Not met comin' through the rye. 6. Maybe a baker is kneaded. 7. One kind is mighty scarce. 8. Go ahead with it! 9. A below level proposition. 10. No point to this. 11. You won't get hot-headed with this. 12. It isn't the Polish border. 13. This may "caws" you to pry deeply.

Answers will be found on page 30.

POTENTIAL DESTRUCTION

ON WHEELS ...AND WINGS

SPARK, cause undetermined, touched off this fire as the 3,700 gallon transport was being unloaded.

How would your community handle a hot one like this? Or tackle a sizzling crash fire at the local airport? Burning gasoline is sprayed far and wide igniting most everything it contacts. An extremely dangerous fire to fight!

The war technique of taming airplane crash fires presents the practical solution that requires no special training to execute.

A fog nozzle, water and MEARLFOAM-5, the blended, multi-protein foam liquid, make FOGFOAM that covers wide areas instantly.

* 5 MEARLFOAM

Completely safe and non-corrosive— may be used with standard Mechanical Foam-Forming Equipment

Fogfoam speeds up rescue operations in crash fires involving airplanes, gasoline transports, automobiles, marine tankers...shields fire-fighters from the heat—cools and extinguishes *simultaneously.*

Fog nozzles are now available and every community should prepare itself—with MEARLFOAM-5—for quick extinguishment of gasoline and oil fires...with fullest protection to fire-fighting personnel

• • •

TECHNICAL ASSISTANCE AVAILABLE
Bulletin on Request

** MEARLFOAM-5, in pre-mixed solutions with hard or sea water, will not form any objectionable precipitate on long standing.

FOAM ON FIRE OUT... Stays OUT!

THE MEARL CORPORATION
153 Waverly Place, New York 14, N.Y.

* TRADE MARK

REKINDLES *from* HOT TOPICS

Dear Mr. Kimball:

I was very much interested in the article on Wetting Agents, having experimented with them ever since American Cyanamid Company made Aerosol available about 1934. I heartily agree that use of any surface tension reducer will prove beneficial in securing not only penetration but spread which effects maximum heat absorption. Desirable as such agents are, I have yet to learn of a neutralizer which is effective in overcoming the undesirable effects of such fluids. It just occurs to me that perhaps I have not made clear statements on this subject in the past. The difficulty is not so much from the reduction of surface tension between water and tanks or pumps, thereby permitting atmospheric oxygen to start the corrosion chain, as that the reduction in surface tension between water and metal of the tank or pump permits the oxygen in the water to attack the metal.

So far as I understand the chemistry of the thing, water has a great affinity for oxygen and even though it was practicable to neutralize the oxygen in the water, surface absorption of oxygen would eventually neutralize the inhibitor. Sort of a vicious circle. At any rate, we will more than appreciate it if you will keep us in mind should anything positive develop in the way of effective corrosion control with such fluids. So far as I am aware, none of the wetting agents of themselves are corrosive. One point which should not be overlooked is that as surface tension is reduced, the electrical resistance is altered. This might hasten or retard simple electrolysis. It's complex but interesting.

FRED W. FUNKE.
WESTERN FIRE EQUIP. CO.

★ ★ ★

Dear Sir:

I have just read in your February FIREMEN magazine about the fire which occurred on our farm, December 8, 1945. I find that this was reported to you by Chief Elmer S. Stremel of the Cheswold Volunteer Fire Company. I would appreciate a publication of correction of the loss, and it may be stated that this correction was made by me, Charles C. Marker, Dover, Del., owner.

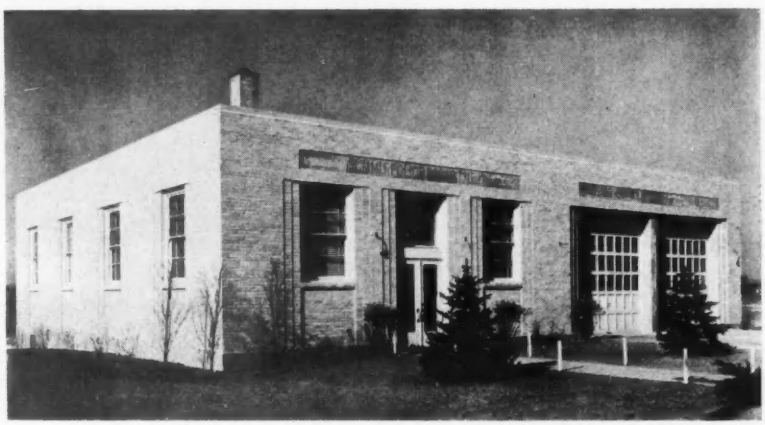
Our loss in this fire in our hatchery was not $300,000 but only $125,000, and I wish to state that the diagram of the hatchery building was misrepresented. I also found that the Dover and Smyrna fire companies were not mentioned. These companies responded and we appreciated their help.

The Cheswold Fire Company was only one and one-quarter miles from our plant. They knew where the fire was before Dover did, but Dover, four miles away, was the first to respond. I appreciate what all the neighboring firemen, friends and neighbors contributed during our loss by fire.

I also learned that we had to call for equipment a second time. Dover was called because they felt that those men were capable. Cheswold firemen . . . worked hard and gave their assistance to their full extent. I also give credit to Elwood Nuckols of the Smith Orchards, Inc., for his assistance with his tank truck.

I would appreciate a correction of this as soon as possible as a true estimate and report of my own findings.

CHARLES C. MARKER, *Owner*.
Marker's Poultry Farm & Hatchery



Federal Works Agency Photo

Summit, Ill., proudly houses its fire department in this up-to-date station. The new quarters, shared with the police department, were constructed, as a Federal Works Agency Project, with the assistance of the Lanham Act.

Write a subscription check to your fire department while appeasing the butcher, the baker and the nylon salesman. This was the appeal of the Glen Ellyn, Ill., Volunteer Fire Company in the local newspaper for funds to meet the 1946 budget.

This dramatic poster was reproduced on the entire back page of the paper, symbolizing the necessity of financial asistance from Glen Ellyn's citizens to insure the best fire protection. The artist was the well known creator of the "Buck Rogers" comic strip, Dick Calkins, a resident of Glen Ellyn.

FIRE!
$
GLEN ELLYN VOLUNTEER FIRE DEPT
Fight the Ever-Present Threat to Your Home and Security
Send Your Contribution To Your Fire Company NOW!
FINANCE COMMITTEE
P. O. BOX 431 GLEN ELLYN

Do Your Share! - Give Now!

"Fire Fighting Practices," Unit I of Company Officer Training

FIRE FIGHTING PRACTICES is Unit I of a series of courses for company officers as set up and adopted by the Oklahoma State Firemen's Association. The other three units are, respectively, Commanding a Company, Job Training Practices, and Handling Men.

The table of contents of *Fire Fighting Practices*, Unit I of Company Officer Training, contains such headings as Receiving the Alarm, Checking Personnel, Visualizing the Situation, Attacking the Fire, and Holding a Post-Fire Conference.

Each topic is illustrated with well-chosen photographs. In the back of the text is a list of source material for company officers wishing to do further study on the subject.

Copies of *Fire Fighting Practices* may be obtained from the A. & M. College Book Store, Stillwater, Okla.

★ ★ ★

Clarinda, Iowa, Cleans Up

THE Clarinda, Iowa, Fire Department conducted a campaign last February to remove rubbish and other combustibles from buildings in the community. The following letter was sent to 200 business houses, where the return address card was to be signed by the management, indicating that any and all fire hazards had been removed.

Dear Fellow Clarindan:

When FIRE is striking hard at other towns (and it is now), then is the time to hitch our belts a notch and to put in a few hard licks at removing possible cause of FIRE in our stores and homes.

Your volunteer fire department would much rather help in preventing such a fire in Clarinda than to try to fight it after it is started . . . And **so would you!**

That's the reason for the enclosed card. Make a careful check of your business location NOW, then fill in and mail the card — it's self-addressed. The Iowa law permits costly penalty to the tenant of such building which harbors fire hazards. But we are only asking that YOU take the job on yourself, that of removing the hazards.

Very truly yours,

Chief Omer Willison
Clarinda Volunteer Fire Dept.

WHEREVER YOU FIND LIFESAVING AT ITS BEST

You'll find

The E & J RESUSCITATOR INHALATOR and ASPIRATOR

E & J Resuscitators are specially designed for the treatment of desperate cases of Asphyxia. These automatic breathing machines are built to include vital life saving features not found in other equipment. A comparison between methods and equipment in the field of artificial respiration reveals the many reasons why E & J Resuscitators have been the choice of a vast majority of the Fire Departments employing mechanical artificial respiration.

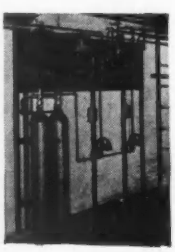
E & J MANUFACTURING CO.
GLENDALE, CALIFORNIA
Pioneers and Specialists in Mechanical Artificial Respiration

Drexel Bldg. Philadelphia — 17 E. 42nd St. New York — 2144 N. Springfield Ave. Chicago — 581 Boylston St. Boston
530 Fernando St Pittsburgh — 3032 W. 25th Ave. Denver — 5900 Grandy Ave. Detroit — 5005 Euclid Ave. Cleveland

The ability to produce goods and employ people is not the only gauge of industrial enterprise. The real proof is how well are life and property protected against fire. What good is insurance if plants are closed down through fire or improper extinguishing methods? Modern plants install modern fire protection equipment.

When tracings and other valuable records are stored in vaults, warehouses or remotely isolated spaces seldom visited, they should be protected with C-O-TWO automatic smoke detecting equipment combined with a C-O-TWO five extinguishing system. At the slightest whiff of smoke an alarm sounds; doors and windows are automatically closed by C-O-TWO pressure release, to isolate the area; then dry, sub-zero, carbon dioxide gas, a non-damaging, fast, positive extinguishing agent, smothers the fire in seconds. And there will be no damage to material or equipment when this modern C-O-TWO method stands guard. You are back in production in a few minutes. Write today for information.

C-O-TWO Detects Smoke . . . Kills Fire
Saves Lives . . . It's Fast . . . It's Modern



C-O-TWO FIRE EQUIPMENT COMPANY

Newark 1, New Jersey

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

Sales and Service in the Principal Cities of the U. S. and Canada

C-O-TWO

New York State Safety Division

Continued from page 20

"To organize, operate, maintain and to encourage and assist in the organization, operation or maintenance of special services and programs for firemen and policemen, as well as the appropriate facilities therefor.

"To make studies and analyses and develop and execute and assist in the execution of plans for the efficient utilization of the resources and facilities of the state in matters related to safety and accident prevention, fire mobilization and control, and police mobilization and activities."

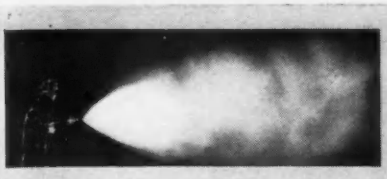
The act proposes the formation of advisory boards for the purpose of assisting the director and bureau heads in the formulation of policies. The membership of such boards may include representatives of civic, police and fire organizations, and state and local officials. These advisory boards would serve without compensation other than actual operating expenses.

The purpose of the act is indicated to be a co-ordination of safety activities in the state in order to reduce the very extensive accident toll both from motor vehicles and from fire and other causes. Automobiles killed 1,763 persons and injured 80,776, with damage exceeding $21,000,000 in New York State during 1945. A large number of lives were also lost from fires, although 1945 figures are not yet available.

* * *

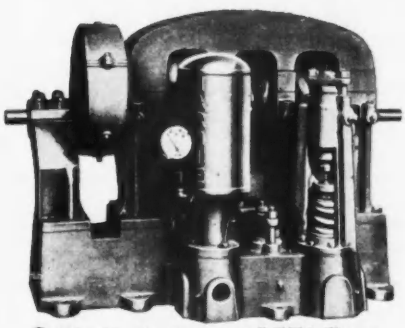
Canton, Ohio, Inspection Program

THE Fire Prevention Association of Ohio conducted a very interesting inspection program in cooperation with the Canton, Ohio, Fire Department under Chief George E. Jacob (member NFPA). Members of the Ohio Fire Prevention Association who were experienced inspectors in the fire insurance field each took one or more fire company officers and made actual building inspections with them. The insurance inspector described the hazards as viewed from an insurance standpoint and the methods that should be employed for the abatement of hazards. At the end of each half day everyone assembled at the fire station to hear talks on building inspections given by members of the Association and to participate in round-table discussions. This is a new type of program that supplements the regular town inspection work which has been carried on for a number of years by the Ohio Fire Prevention Association.

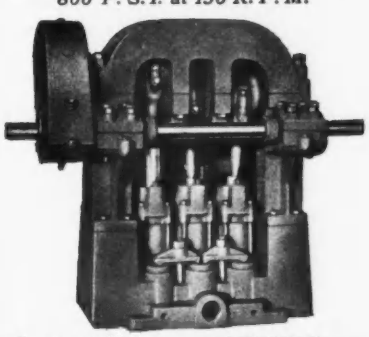


FOG without SPLATTER!

It's HARDIE *equipped!*



● *The Hardie Imperial LCXA Pump delivers 60 gallons per minute at 800 P. S. I. at 130 R. P. M.*



● *The Hardie Imperial XCXX Pump delivers 35 gallons per minute at 800 P. S. I. at 118 R. P. M.*

● This modern fire truck delivered to a New York State community is **HARDIE**-equipped for ***speedy and efficient*** fire control with the Fog Spray method!

Hardie provides the unbeatable combination of the ***right*** pump and gun for your Fog Fire Fighter. Hardie pumps deliver 800 P. S. I. at slow speed, easily and without excessive strain on any part. The Hardie Fog Fire Gun produces a true fog—***with no splatter!*** All the water passing through the gun is completely atomized delivering the maximum of fire control efficiency. One hand trigger control enables operator to apply either a true fog—blended fog and spray—or a solid driving stream.

Hardie pumps and Fog Guns are supplied by leading manufacturers of fire control equipment. Specify a Hardie pump when you buy your new Fog Fire Fighter or convert an old unit into one. Write for catalog and complete data.

THE HARDIE MFG. COMPANY

Hudson, Mich. Los Angeles, Calif. Portland, Oregon

Canadian Distributor C. W. LEWIS, Grimsby, Ontario

★H★A★R★D★I★E

High Pressure **PUMPS AND FOG GUNS**

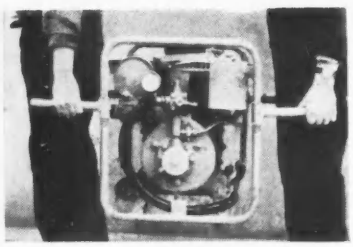
for Fog Fire Fighters

THE NEW HALE FZZ
COMPACT—POWERFUL—PORTABLE

Frequent reports reach us telling of new uses for the Hale FZZ Portable Pumping Unit. Here are just a few of the many practical ways this unit is making itself useful to fire-fighters:

- For fighting field or forest fires from moving trucks.
- For "wetting down" and for stand-by use, thus releasing major equipment.
- For pumping out flooded cellars and elevator shafts after fire, flood or other emergency.
- For relaying water into pump or booster tank from water sources inaccessible to major Fire Pumpers.
- For Factory Protection in fighting fires, before major equipment arrives.
- For fighting oil or other type fires requiring foam. (Built-in Foam Proportioner available when specified.)

Can Be Easily Carried or Wheeled on Floor.



Write today for FZZ Folder and up-to-date information on Hale Fire Pumps built in all standard capacities.

HALE
FIRE PUMP COMPANY
Conshohocken, Pa.

Better
FIRE STATIONS
with CIRCUL-AIR
THE AIR-CONDITIONING

FIRE HOSE DRYER

It's "post-war" now, and we're sure you want your new stations to be of **Modern Design** . . . simpler, streamlined houses in keeping with the times . . . with better lighting, heating, adequate alarm systems, finer apparatus and faster **Hose Drying.** In eliminating the costly, ugly hose tower of the "gay 90's" **CIRCUL-AIR** improves building appearance and lowers construction cost. Efficient and practical for large central stations, they are ideal for "bungalow" type houses, for villages, townships and fire districts where time-saving, space and costs are decisive factors.

for OLD STATIONS *too!*

Without adequate drying equipment, or with towers in need of repairs they are most economical and efficient. Cheaper than a tower, more compact than a drying rack, faster and easier to use than either.

ASK A CHIEF WHO HAS ONE

Or Write for Descriptive Booklet

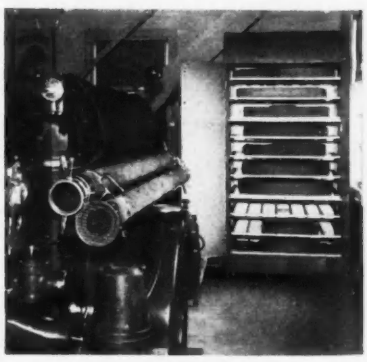
The CIRCUL-AIR Corporation
6339 East Palmer Avenue
DETROIT 11, ◆ MICHIGAN

Drying cabinets in Memphis, Tenn., Fire Headquarters

Hose Drying Cabinets Popular

MORE and more fire departments are turning to the use of mechanical hose dryers which conserve both space in the fire station and the time required to dry hose. Many visitors to the Fire Department Instructors' Conference held each January in the central fire station in Memphis will recall the hose drying racks formerly suspended from the ceiling above the apparatus. These have now been replaced with the two Circul-Air hose drying cabinets shown in the photograph above. One thousand feet of hose may be dried in the two cabinets (twenty sections). After the hose is dry, the doughnut rolls are placed on the racks shown at the left of the photo. They are thus quickly available for replacement of hose on the various pieces of apparatus.

Shown below is Circul-air hose drying cabinet conserving space in the



Drying cabinet, Eastwood Fire District, Michigan

rear of the small fire station of the Eastwood Fire District, Kalamazoo, Michigan. It may be noted that the cabinet has been placed very conveniently in relation to the rear of the pumper to facilitate loading and unloading the hose.

For Fast, Safe, Effective Fire-Fighting Use StrangleAIR FOAM and FIRE-SNUFFER NOZZLES

Pat. 2,388,508

StrangleAIR IS FAST

StrangleAIR IS SAFE

StrangleAIR IS EFFECTIVE

Fast to subdue and extinguish flames and quick to reduce heat. Fire cannot withstand the smothering effect of StrangleAIR FOAM.

It is safe to handle, safe to use, safe to store. And its thick foamy lather gives added safety by eliminating flash-backs and preventing formation of noxious or dangerous fumes.

It shuts off air immediately. Flames die under heavy coating of StrangleAIR FOAM that can be applied to any surface, horizontal or vertical. StrangleAIR clings and lasts for hours without injury to paint, woodwork, furniture or carpet.

For prompt, complete information, fill in coupon and mail today.

FIRE-SNUFFER NOZZLES

are designed expressly and exclusively for foam. Light, sturdy, dependable units, easy to clean and handle. Available in standard sizes from 2½ GPM to 250 GPM through fire appliance supply houses.

Play safe—feel safe—be safe with StrangleAIR FOAM and FIRE-SNUFFER NOZZLES.

Please send me illustrated Bulletin 55

Name .....

Fire Dept. .....

Address .....

.....

StrangleAIR FOAM · FIRE-SNUFFER NOZZLES

AMERICAN DIE & TOOL COMPANY, INC., East Reading, Pennsylvania

FEDERAL ELECTRIC COMPANY, INC.
SIREN HEADQUARTERS

its POWER clears the way!

FEDERAL
traffik-king
SIREN

Oscillating or Flashing Red Light
Single or Double Tone; Regular
or Coaster with electric brake

The powerful deep tone of Federal Sirens assures protection for vehicles and pedestrian, because its warning penetrates far ahead, above other traffic noises. Instant starting, constant dependability, long, trouble-free service. Get details today.

PRECISION-MACHINED ROTOR
knife-edge ports
thin, smooth blades
ball bearings
heavy duty 6 or 12-volt motors

WRITE for FREE BULLETINS
Details, illustrations, prices, on this and other FEDERAL Sirens

FEDERAL ELECTRIC COMPANY, INC.
8717 SOUTH STATE ST., CHICAGO 19, ILL.

FIREMEN'S Rubber and Canvas CLOTHING
FROM Midwestern

This Midwestern Combination Suit, made of Vanitex, the modern waterproof fabric, is sold separately or together. The "Mackinaw Coat" is a highly serviceable garment with flexible elastic inner sleeves; adjustable collar strap, detachable wool lining, Midwestern safety snaps, two outside pockets, 6" storm flap and many other good features.

Hundreds in use
All over America

Midwestern Bunker Pants with detachable wood lining, safety snap on adjustable belt, wide protecting flap, are sturdily constructed with reinforced crotch for pole sliding. Write today.

Regular Firemen's Boots available ¾ length. See your local Midwestern distributor for price and literature, or write the factory.

Manufactured by
MIDWESTERN MANUFACTURING CO.
MACKINAW, ILLINOIS

How Well DID You Know Your "Line"?

Continued from page 22

1. Heir, Real, Adder — aerial ladder.
2. Cy, Wren — siren.
3. Plain water, Foam, Car, Bond, Eye, Oxhide, X, Sting, Wishers — plain water, foam, carbon dioxide extinguishers.
4. Cot, Ton, Rubber, Lined, Hoes — cotton rubber-lined hose.
5. Hose, Body — hose body.
6. Doughnut, Roll — doughnut roll.
7. Butter — "butter."
8. Leader, Lion — leader line.
9. Seller, Pipe — cellar pipe.
10. Flat head, Axe — flathead axe.
11. Hell, Mitt — helmet.
12. Pike, Poles — pikepoles.
13. Crow, Bar — crowbar.

The cartoon was designed and executed by "Art" Espey.

Gag Rule for F.D.N.Y. Withdrawn

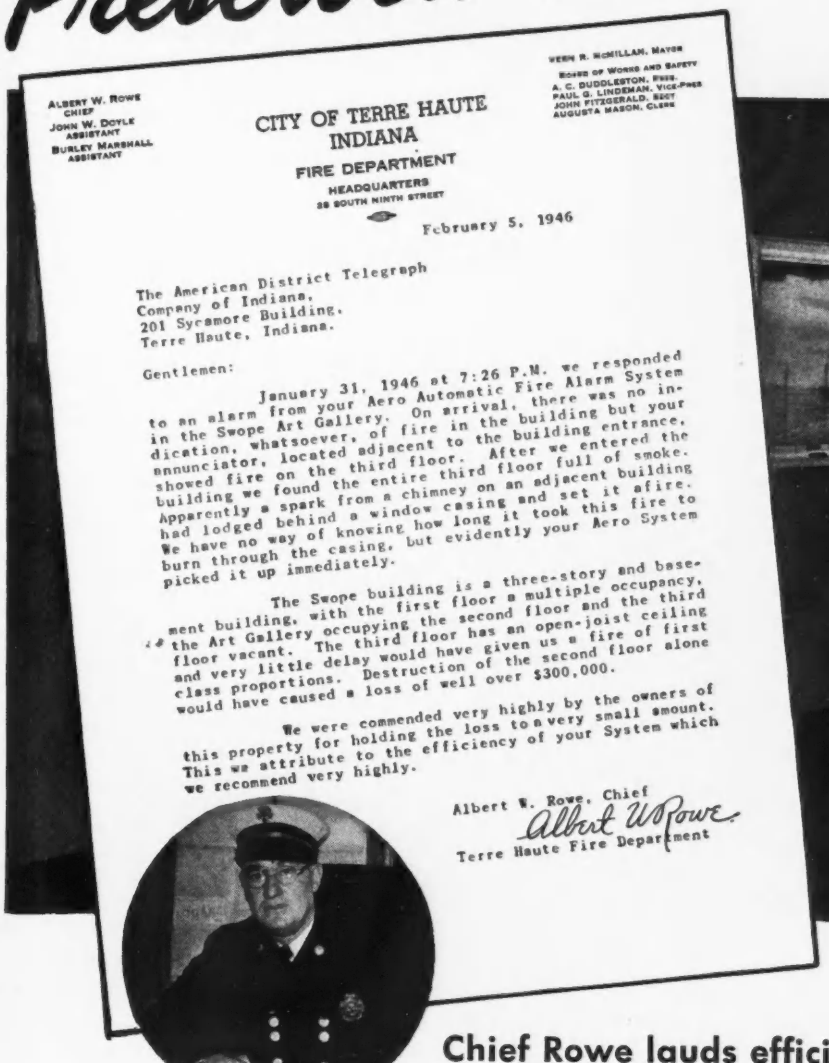
THE gag rule, imposed on New York City firemen by a previous administration, was recently removed as the result of a decision handed down by the Court of Appeals of Albany. Fire Commissioner Frank Quayle voiced the wishes of the Uniformed Firemen's Association when he said that the right of free speech would not be denied by him to any member of the department. New York firemen are free to express themselves on working conditions and other matters pertaining to civil service at any time.

Maryland Company Publishes Community Directory

LEXINGTON PARK VOLUNTEER FIRE DEPARTMENT, INC., of Lexington Park, Md., a newly enrolled member of the Volunteer Fire Company Section, published a complete community directory listing all residents of Lexington Park and Cedar Park. The sixty-page directory also contains many advertisements of local business concerns and netted the fire department $1,850 in 1945.

The Lexington Park Fire Department was organized in September 1943 with Mr. B. W. Poindexter, president; Mr. J. W. Whitam, secretary; Mr. John Fulton, chief; and Mr. J. W. Whitam, assistant chief. The department is equipped with a one-and-a-half-ton Chevrolet triple combination pumper and a Waterous pump.

Preserved For Posterity



ALBERT W. ROWE
CHIEF
JOHN W. DOYLE
ASSISTANT
BURLEY MARSHALL
ASSISTANT

CITY OF TERRE HAUTE
INDIANA
FIRE DEPARTMENT
HEADQUARTERS
28 SOUTH NINTH STREET

VERN R. McMILLAN, MAYOR
BOARD OF WORKS AND SAFETY
A. C. DUDDLESTON, PRES.
PAUL G. LINDEMAN, VICE-PRES
JOHN FITZGERALD, SECT
AUGUSTA MASON, CLERK

February 5, 1946

The American District Telegraph
Company of Indiana,
201 Sycamore Building,
Terre Haute, Indiana.

Gentlemen:

January 31, 1946 at 7:26 P.M. we responded to an alarm from your Aero Automatic Fire Alarm System in the Swope Art Gallery. On arrival, there was no indication, whatsoever, of fire in the building but your annunciator, located adjacent to the building entrance, showed fire on the third floor. After we entered the building we found the entire third floor full of smoke. Apparently a spark from a chimney on an adjacent building had lodged behind a window casing and set it afire. We have no way of knowing how long it took this fire to burn through the casing, but evidently your Aero System picked it up immediately.

The Swope building is a three-story and basement building, with the first floor a multiple occupancy, the Art Gallery occupying the second floor and the third floor vacant. The third floor has an open-joist ceiling and very little delay would have given us a fire of first class proportions. Destruction of the second floor alone would have caused a loss of well over $300,000.

We were commended very highly by the owners of this property for holding the loss to a very small amount. This we attribute to the efficiency of your System which we recommend very highly.

Albert W. Rowe, Chief
Albert W Rowe
Terre Haute Fire Department

Chief Rowe lauds efficiency of Aero System in protecting $300,000 Swope Art Collection.

To avoid heavy fire and water damage in buildings housing objects of artistic and historical value, *speed* is a vital factor in the detection and reporting of fires. • The outstanding effectiveness of the Aero Automatic Fire System in protecting such buildings, as well as other types of structures and occupancies, is attested by the above letter from Fire Chief Albert W. Rowe of Terre Haute, Indiana. • May we tell you how this and other A.D.T. Services can help solve your protection problems? *Write for descriptive booklet.*

AERO AUTOMATIC FIRE DETECTING AND REPORTING SERVICE

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH CO.** *155 Sixth Avenue, New York*
CENTRAL STATION OFFICES IN ALL PRINCIPAL CITIES OF THE UNITED STATES

A·D·T

Electric Protection Services
AGAINST FIRE · BURGLARY · HOLDUP
A NATION-WIDE ORGANIZATION

Fighting That Gasoline Tank Truck Fire

Continued from page 7

the saving of life, the exposures must be considered. It would be advisable, in this discussion, to touch just lightly on this phase of the problem. It is most important but space will not permit our extended remarks. Lieutenant Oresteen, can you briefly outline the procedure you would take to cover the exposures?

Lieutenant Oresteen: An excellent view of a dangerous exposure can be seen in the picture (lower, page 7). The placing of portable street guns or monitor turret pipes in such a manner as to create a water curtain between the fire and the side of the building would help to prevent ignition of the building. In some cases the use of ordinary hand lines would serve the purpose. Where a buiding has already become involved with fire, fire fighters should adhere to standard practices of extinguishment.

Lieutenant Pearson: That covers the general idea and must suffice at this time. After the exposure fires have been attended to and buildings protected, all further efforts can be centered on the gasoline fire and truck.

Captain Belcastro, where exposure hazards are not involved, how would you handle the flow of escaping gasoline?

Captain Belcastro: I have in mind a field by the side of the road or a location some distance from the tank truck on the street itself. I would dike up the gasoline into a definite path and allow it to accumulate into reservoirs. At that place I would allow it to be entirely consumed by fire. The danger would then be over. Diking could be accomplished by the use of sand, gravel, dirt or ashes which may be available. If not, the highway department should be called.

While on the subject of diking, may I say that where gasoline is flowing and in danger of entering basements, cellars or other low spots, banking of dirt or sand around windows, doors or other low openings would prevent the entry of fluid or fumes into these areas. Diking around manholes would protect these openings against the entry of fluid gasoline.

Lieutenant Pearson: Your last idea is very well taken, Captain. Let us now assume that the tank truck has overturned, ruptured and the gasoline is flowing down a grade. How would you proceed in this case, Lieutenant?

Lieutenant Martin: A great deal would depend on the extent and width of the fire area. Nevertheless, I would rather have extra lines on hand than be shorthanded. Four 1½-inch lines equipped with fog nozzles and applicators should be laid to the farthest point of advance of the flowing gasoline. Each line should have sufficient hose to allow the operators to proceed to and completely circle the tank truck. It is advisable, where practical, to have hosemen placed every twenty-five feet on the lines to lighten up and keep them moving forward without difficulty. An engine pressure of 100 pounds is practicable and most efficient.

When all lines are ready, they should be advanced broadside and simultaneously toward the ruptured tank. Nozzles should be pointed slightly toward the center of the street to prevent extension of the fire sideways due to the force of the streams. Care should be taken that every particle of fire is extinguished, during the advancement, to prevent danger of re-ignition.

Lieutenant Pearson: I believe Lieutenant Oresteen has something on his mind.

Lieutenant Oresteen: Yes. To cool down the tanks on the truck, I would have 2½-inch lines playing onto the sides of the tanks to reduce the temperature. Further rupture of other tanks might be averted.

Lieutenant Pearson: I know Captain Belcastro has ideas on protection of personnel.

Captain Belcastro: Where extremely hot fires are encountered, it may be advisable to have the fog nozzle operators covered and protected by an additional fog nozzle held over their heads. In this manner the heat would be dissipated and the operator could advance with more ease and safety. These extra lines could be used to great advantage should a flashback occur.

Lieutenant Martin: Immediately behind the fog nozzle operators, foam nozzles should lay a blanket of foam over the entire area where the gasoline had been burning, criss-crossing the area continuously to cover all spots where excess water flows down and breaks up the foam. This blanket of foam would prevent any flame from reigniting the gasoline. It would prevent a flashback during the extinguishment of remaining fire.

Captain Belcastro: When the fog nozzle operators reach the tank truck, they should raise their nozzles over and around the tank to cool the metal, if 2½-inch lines are not on hand to perform this operation. Then, circling the tank, extinguish all remaining fire under and around the tank and truck. These lines should then be held in readiness should re-ignition take place.

Lieutenant Pearson: Thank you, Captain. That's fine.

The fog will reduce temperatures, smother flame and dissipate vapors. The foam will blanket the gasoline whether on the ground or on top of water. Foam or fog may be used on mass quantities or pools of gasoline.

In small fires in gasoline, the carbon dioxide extinguisher may be used, but extreme caution should be used to prevent re-ignition due to the high heat still existing in the metals in contact with gasoline fumes. Where large installations of carbon dioxide are at hand, they may be used with success. Fog and carbon dioxide in combination may prove effective in control of gasoline fires.

Now Lieutenant Oresteen, how will we start our clean-up?

Lieutenant Oresteen: First, we must have sufficient lines at hand should re-ignition occur. All sand, gravel, dirt and ashes used for diking and absorbing gasoline should be gathered up and hauled to a safe place, and gasoline and vapors burned off. After the sand has been swept from the street, large lines should be employed to flush the streets thoroughly. Care must also be taken that all catch basins are thoroughly flushed to prevent any gasoline or vapors remaining therein.

Continued on page 34

The Fire Is Out

FMC HIGH-PRESSURE FOG FIRE FIGHTERS

Underwriters' Laboratories Approved

850 LBS. PUMP PRESSURE!

600 LBS. (OR MORE) GUN PRESSURE!

FMC High-Pressure Fog Fire Fighters are building astonishing records for fast attack . . . quick extinguishment . . . low fire losses . . . minimum damage by water.

This complete unit, recently delivered to Intercourse, Pa., carries 430 gallons of water, two hose lines, two guns and all other necessary equipment.

FMC *Original* **HIGH-PRESSURE FOG FIRE FIGHTER**

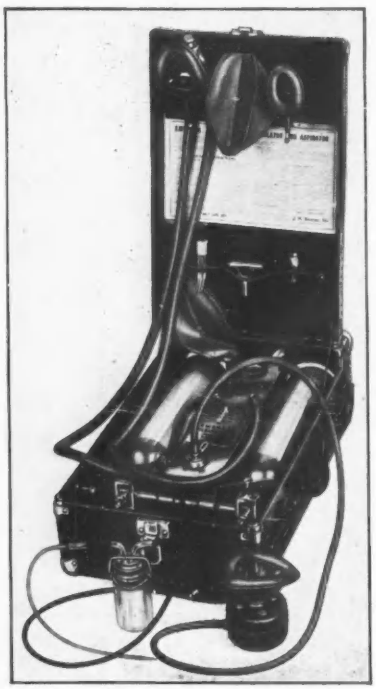
CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

JOHN BEAN MFG. CO., 726 HAZEL ST., LANSING 4, MICH. • BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

WHEN LIFE IS AT STAKE DON'T TAKE CHANCES!



PLAY SAFE

with an

EMERSON RESUSCITATOR

When you are faced with smoke suffocation, gas poisoning, electric shock, drowning or other asphyxia, you can't afford to have anything but the best equipment available. That is why you need an EMERSON.

●

Write for literature or an actual demonstration.

●

J. H. EMERSON CO.
24 Cottage Park Ave., Cambridge, Mass.
Representatives in Principal Cities

National Fire Protection Association, International

Associate Membership

VOLUNTEER FIRE COMPANY SECTION ($10 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive at their headquarters, one copy of all publications sent to NFPA associate members.

ASSOCIATE MEMBERSHIP ($10 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly,** the monthly

New members: Volunteer Fire Company Section —

Dania Vol. Fire Dept., Dania, Fla.
Seat Pleasant Vol. Fire Community Welfare Assn., Inc., Seat Pleasant, Md.
Wilbraham Fire Dept., No. Wilbraham, Mass.
Highland Park Fire Dept., Highland Park, N. J.
W. F. Bruen Hose Co., No. 1, Inc., Clinton Heights, Rensselaer, N. Y.
New Springfield Vol. Fire Dept., New Springfield, Ohio
Citizens Fire Co. No. 2, Inc., Emmaus, Pa.

CANADA

New Waterford Fire Dept., New Waterford, N. S.
Porcupine Vol. Fire Dept., Porcupine, Ont.

★ ★ ★

Gasoline Tank Truck Fire

Continued from page 32

Lieutenant Martin: All remaining gasoline should be drained from the ruptured tank or any which may be leaking. These tanks should be thoroughly flushed with water to remove vapors and fluid. When it has been made safe, the truck should be towed away to a safe area for proper disposal.

Lieutenant Pearson: Captain, have you anything else to say?

Captain Belcastro: Public utility companies should inspect all manholes and ventilate them. Bear in mind that these fumes are heavier than air. They enter the manhole through the holes in the cover and accumulate at the bottom of the enclosure.

Lieutenant Oresteen: Every basement, cellar and low spot in the area is a probable lurking place for fumes or fluid. They will seek out the lowest levels. In some types of buildings there are sub-basements which should also be inspected.

Lieutenant Martin: After a thorough inspection of the territory, and all sources of re-ignition have been removed, the apparatus should be returned to headquarters. Hose used at the fire should be thoroughly washed and scrubbed to remove residue of gasoline which would quickly deteriorate the jackets and linings. Soap helps to correct the deterioration of rubber due to gasoline.

Lieutenant Pearson: As chairman, in summing up this conference, may I state that this type of fire requires the use of many hose lines to bring the fire under control and to protect exposures. The proper use of fog, foam and straight water streams, and the knowledge of when and where to use them is most essential.

Transportation of gasoline through the streets of high value districts at the present time is unrestricted in many localities. We can see the grave hazards in the pictures shown. The routing of this type of traffic away from congested areas would lessen the danger. Roads leading into such areas should be posted and provisions made to route such vehicles over suitable back roads to by-pass main city thoroughfares.

Comments and questions on the subject are most cordially invited and will be answered in subsequent issues. Our only wish is that someone has gained some knowledge that will help them if they should encounter this difficult type of fire fighting operation.

★ ★ ★

Nine Memberships from Berkeley Fire Department

THE fire department of Berkeley, Calif., through Chief William Meinheit, has recently enrolled in the NFPA with nine memberships.

Reprinted by special permission from the *Saturday Evening Post*, copyright 1945, by the Curtis Publishing Company

"I know it's a bit unusual, chief, but to avoid unpleasantness would you mind letting my wife take charge?"

West University Place, Texas

THE West University Place Fire Department (member NFPA), has recently elected as chief, W. F. Semmelrogge, a member of seven years standing. Chief Semmelrogge was serving as battalion chief when he left to enter the Coast Guard. He received instructor's training at Fort McHenry and served two years on Navy fireboats.

The West University Place department guards a community of 1,300, but having few business establishments. For equipment, the department owns a Seagrave 750 g.p.m. pumper and a Diamond T, built to the department's specifications. It carries 300 gallons of water and is loaded with 500 feet of 2½-inch hose which makes a feeder line or combination feeder and additional fighting line at plug pressure available. Two 100-foot 1½-inch lines are kept tied into the pumps at all times. Each line can be extended another 100 feet from additional hose loaded under leader lines. One is fitted with a straight cut-off nozzle while the other is equipped with a combination solid stream and fog.

All revenue for insurance on the men, purchasing equipment and the like are furnished by the city from its regular tax sources. Two paid drivers are maintained.

It is realized that the equipment and size of the organization are not adequate for a city the size of University Place. However, postwar plans are to cooperate with nearby Bellaire and Southside departments. Houston, which University Place adjoins, maintains a modern station within two miles.

The Gulf Coast Volunteer Firemen's Association, famous for its monthly meets and pumper races (see *Volunteer Firemen*, June 1945, page 7), originated in West University Place.

From the Fogelsville, Pa., Volunteer Fire Co. No. 1 comes this picture of the department's front-mount pumper taking suction from a 1,025—gallon water tank truck. Fogelsville's 200 g.p.m. portable pump is also shown. Chief Henry J. Gernerd heads the department's 450 members, of whom 28 are regular fire fighters, each of whom receive FIREMEN magazine.

YOUR PUMPER CAN DO THIS

WITH THE DERBYSHIRE ACCEL-O-RATE JET PUMP BOOSTER

Yes, your own pumper can lift water over 100 feet or draft it horizontally from a source more than 200 feet away—if you have an Accel-O-Rate.

Think what this would mean to YOU, when steep banks, mud, walls, or high bridges keep you from getting your pumper close enough to a water source to use ordinary suction.

Everyone who sees the Accel-O-Rate is amazed at what it will do, how simple and handy it is. It weighs only 18 lbs., has no moving parts to wear out or get out of order.

See your fire equipment dealer today or write to us direct for complete details.

100 FT.

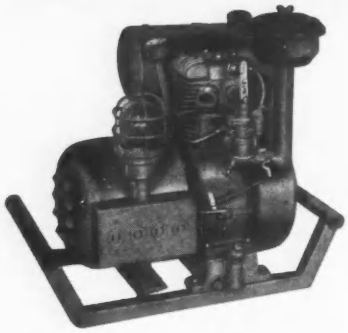
THE DERBYSHIRE ACCEL-O-RATE JET PUMP BOOSTER gives you HORIZONTAL REACH-200 FT. VERTICAL LIFT-100 FT.

JET PUMP DIVISION

DERBYSHIRE MACHINE & TOOL CO.

Belfield Avenue

PHILADELPHIA 44, PENNA.



"U.S." ELECTRIC PLANTS

These rugged 1,500 watt units were designed to fire department specifications — built to meet every need. Dependable, quick-starting, 4-cycle engine. Positive lubrication. Automatic voltage regulation. No fussing to mix gasoline and oil. Compact — an easy load for two men.

Larger and smaller sizes are also available
Write for information

UNITED STATES MOTORS CORP.
424 NEBRASKA ST. OSHKOSH, WIS.

INDEX TO ADVERTISERS

Akron Brass Mfg. Co., Inc.	40
American Die & Tool Co.	29
American District Telegraph Co.	31
Arnold, Hoffman Co., Inc.	2
John Bean Mfg. Co.	33
The Circul-air Corp.	28
C-O-Two Fire Equipment Co.	26
W. S. Darley & Co.	37
Derbyshire Machine & Tool Co.	35
E & J Mfg. Co.	25
J. H. Emerson Co.	34
Federal Electric Co., Inc.	30
Four Wheel Drive Auto Co.	21
The Gamewell Co.	3
Hale Fire Pump Co.	28
The Hardie Mfg. Co.	27
Walter Kidde & Co., Inc.	39
Mack Mfg. Co.	4
The Mearl Corp.	23
Midwestern Mfg. Co.	30
Mine Safety Appliances Co.	38
D. B. Smith & Co.	19
United States Motors Corp.	36

When you write to advertisers, please mention FIREMEN

MANUFACTURERS' ANNOUNCEMENTS

CD-Sno Fog Extinguishers

The General Detroit Corp., and The General Pacific Corp. announce a carbon dioxide portable fire extinguisher in a complete range of sizes from 2 to 100 lbs. Called CD-Sno Fog, the extinguisher is one of a complete line of Underwriters' approved fire extinguishers and allied products.

CD-Sno Fog is made in 2, 4, 7½, 10, 15, 20, 50, 75, and 100 lb. sizes. Complete details may be obtained from The General Detroit Corp., 2270 East Jefferson Ave., Detroit 7, or The General Pacific Corp., 1800 South Hooper St., Los Angeles 21.

New Wetting Agent Announced

Arnold, Hoffman & Co., Inc., Providence, Rhode Island, widely known in the textile trade, announces the introduction of a new liquid development in the fire fighting field, now being distributed under the trade name "Drench." It is reported that "Drench" increases the fire fighting effectiveness of water on all Class A and on certain Class B fires. This is accomplished without changing the basic characteristics of water, or requiring any change in commonly used equipment. The effect of "Drench" is to reduce the surface tension of the water. (See FIREMEN, March 1946 p. 6.)

The manufacturer recommends that "Drench" be added to water in proportions of one per cent by volume. They state that it is a readily soluble liquid which remains in effective solution and is not injurious to metals, wood, coal, textile fibres, synthetic or natural rubber.

To distribute the new product and conduct further research in fire fighting agents, Arnold, Hoffman & Company has created a Fire Specialty Division which is under the direction of William W. Parker, formerly associated with the Grinnell Co. research department under an Office of Scientific Research and Development contract.

Canadian DuGas Distributor Appointed

Ansul Chemical Company, Fire Extinguisher Division, Marinette, Wis., has appointed Levitt Safety Appliances Company, 1652 Yonge Street, Toronto, Ontario, as a distributor of its line of DuGas dry chemical fire extinguishers for the provinces of Ontario and Quebec.

Homelite Offers New Bulletin

The completely new line of Portable Gasoline-Engine-Driven Generators now being produced by the Homelite Corporation, Port Chester, New York, is described in their new Bulletin L-406. It describes pictorially the standard line of generators which Homelite has developed . . . all of them are new models. Improved designs and the use of new materials in their construction have made possible a wider capacity range while retaining Homelite's extreme portability. Aluminum alloys in all major castings plus Homelite's two-cycle engine design make possible the high horse power to weight ratio.

"ALL-OUT" Changes Hands

The National Powder Extinguisher Corp., manufacturers of the "ALL-OUT" Dry Chemical Fire Extinguisher, has been absorbed by Pressurelube, Inc., of New York and the extinguisher is now being produced by the ALL-OUT Fire Extinguisher Division of that corporation. The extinguisher carries the approval of Underwriters' Laboratories, Inc., and the Factory Mutual Laboratories for use on Class "B" and Class "C" fires. It also has value on incipient fires in Class "A" materials in which the fire has not become deep-seated. The manufacturer will gladly furnish complete details. Address: 609 West 134th St.

New Fire Equipment Catalog Available

A handsome new 84-page catalog of fire fighting equipment has just been published by the American Fire Equipment Company of Boston, Mass. Copiously illustrated, it contains descriptive listings of almost every conceivable item a fire department might require from acetylene cutting outfits to wrenches. The American Fire Equipment Co., will gladly send a copy of the catalog to the Chief or Secretary of any fire department requesting a copy on official letterhead.

LIFTS WATER 100 FT.

SPECIFY A HI-LIFT ON YOUR NEW TRUCK

$165 NOT INCLUDING SIAMESE

CHAMPION HI-LIFT SUCTION BOOSTER

30 DAY FREE TRIAL! BUY ON PROOF! MAKE YOUR OWN TESTS!

228 GALLONS PER MINUTE FROM A 57 FOOT LIFT

208 GPM WITH THE TRUCK 73 FEET ABOVE AND 165 FEET DISTANT FROM THE WATER

"... a most useful piece of equipment in our Department."

CHIEF BORDEN, SWANSEA, MASS.

FIRE DEPARTMENT
SWANSEA, MASS.

W. S. Darley & Co.
Chicago 12, Illinois

Gentlemen:

I am writing to acknowledge the receipt of the Hi-Lift Suction Booster that you shipped to us. We have tried it and demonstrated it under various conditions, and I am convinced that it will be a most useful piece of equipment in our Department. It has been demonstrated to our Selectmen and I am quite sure, from the remarks, that I will be given permission to purchase it.

Yours very truly,
JOHN W. BORDEN,
Chief.

WRITE FOR HI-LIFT CIRCULAR

W. S. DARLEY & CO.

ESTABLISHED 1908
CHICAGO 12, ILL.

FOR MODERN PROTECTION AND APPEARANCE...

"THE HAT THAT TAKES CARE OF THEIR HEADS!"

M·S·A
Streamlined FIREMAN'S HELMET

Check these Features!

- √ One-piece, high pressure molded of laminated bakelite
- √ Tremendous resistance to fracture
- √ Best protection against electric shock
- √ Can't soften, swell or gain in weight
- √ Reinforcing crown ridge
- √ Self-ventilated, cool and comfortable

Soft leather sweatband
—adjustable crown hammock
—sturdy chinstrap!

Better head protection and easy wearing comfort ride with the fireman on every run—stay with him on the job, and serve him every minute—when he wears the M.S.A. Streamlined Fireman's Helmet! This most popular modern helmet's correct proportions and streamlined design deflect the force of blows and bumps, keep hot water and embers from face and neck, add smartness on parade. Heat and moisture cannot soften or deteriorate the highly fracture-resistant shell . . . write for the facts in Bulletin DX-5!

MINE SAFETY APPLIANCES COMPANY
BRADDOCK, THOMAS AND MEADE STREETS PITTSBURGH 8, PA.
District Representatives in Principal Cities
In Canada: MINE SAFETY APPLIANCES COMPANY OF CANADA, LIMITED
TORONTO MONTREAL CALGARY VANCOUVER NEW GLASGOW, N. S.

recor... the previous high of 3,008,750 last October; New Haven 2,521,712, also a new high.

Hose Racks and Reels Reach Remote Fires

Supplied with hose up to 150 feet in length connecting carbon dioxide cylinders with discharge horn, Kidde Hose Racks and Reels offer a highly effective means of fighting fires over a wide area.

They are particularly useful in fighting flammable liquid or electrical fires too large for hand portables, but not large enough to require a built-in system.

Kidde Hose Racks and Reels can be furnished with one or more 50-pound cylinders of carbon dioxide. In addition to the release valves on the cylinders, a temporary shut-off valve is furnished on the discharge horn. Full details are available from Walter Kidde & Company, Inc.

How to Make Fire KILL ITSELF

See how easily electrical and flammable liquid fires can be extinguished *—completely automatically.*

Write for free 12-page bulletin, "How to Make Fire Kill Itself." Walter Kidde & Company, Inc. 545 Main Street, Belleville 9, N. J.

...ording to assig... will go back to Shanghai. 'I want to return to China and still work with my company.'"

...library, auditorium, music room, gymnasium ... door swimming pool. One complete wing will be devoted to hospital facilities.

...eviously ...owledged that the separatis... were operating in Khamseh, armed with weapons which were distributed by unknown people.

Kidde

THE SIMPLEST WAY TO FIGHT A FIRE!

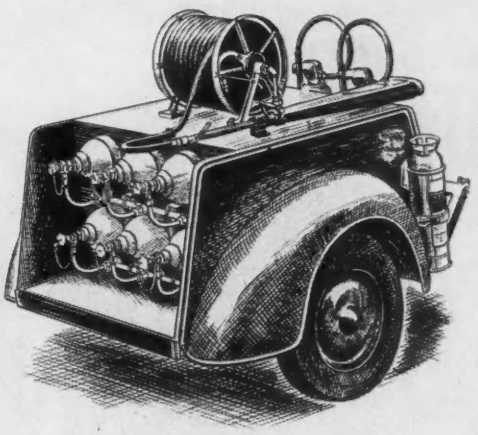
With a Kidde Hand Portable, you just aim at the fire and pull the trigger. Carbon dioxide capacities from 2 to 20 pounds.

Mail and Phone Orders Filled

Kidde

AIMS STRAIGHT AT HEART OF FIRE

To kill flames fast, Kidde "local application" nozzles—supplied as part of built-in systems—aim the carbon dioxide discharge *straight* at the danger spot.



Punch-packing Trailer

FOR INDUSTRIAL FIRE BRIGADES

Here's plenty of fire-fighting wallop in a compact unit that can be maneuvered through factory aisles. Just hook a Kidde Trailer Unit to a light truck—or even a motorcycle—and you're ready to fight fires practically anywhere in the plant!

Built to specification. A typical unit carries a hose reel with 300 pounds of carbon dioxide; two 15-pound carbon dioxide portables; two Kidde water extinguishers. Write for details.

The word "Kidde" and the Kidde seal are trade-marks of Walter Kidde & Company, Inc.

Walter Kidde & Company, Inc. • 545 Main Street, Belleville 9, New Jersey

Strikers Snub 15-Cent ... Offer

General output at factories and mines decreased 4 per cent in October, while in the first half of Novembe... asic in-

Higher Pay Asked

...stationed in a little town in France for several months, wooed a French girl by telling her about ... the ... into

THIS ADVERTISEMENT IS ONE OF A SERIES APPEARING CURRENTLY IN INDUSTRIAL PUBLICATIONS

IT MUST BE AKRON TO BE GENUINE ROCKERLUG

THE COUPLING With These Exclusive Features:

- HIGBEE THREAD
- HIGBEE INDICATOR
- TAPERED STILL THREADS

TRADE ROCKERLUG REGISTERED MARK

Keep this trade mark and name in mind when ordering couplings

AKRON BRASS MFG. COMPANY, INC.
WOOSTER, OHIO

AMERICA'S Outstanding Coupling

ROCKERLUG has maintained this position throughout the more than 19 years since it was introduced by Akron Brass. The popularity of ROCKERLUG in the fire fighting field has grown each year until today more than 90 per cent of the municipalities of the United States have standardized on genuine ROCKERLUG couplings. Safeguard against "like" couplings. Remember—Akron Brass originated ROCKERLUG. Only Akron Brass offers you the genuine.

Be sure to specify AKRON when ordering ROCKERLUG couplings.

AKRON BRASS
FIRE FIGHTING EQUIPMENT